(2)

THE INTERRELATIONSHIP OF STRESS, SAFETY, AND REALISM IN U.S. MARINE CORPS GROUND COMBAT INDIVIDUAL SKILLS TRAINING

A thesis presented to the Faculty of the U.S. Army Command and General Staff College in partial fulfillment of the requirements for the degree

MASTER OF MILITARY ART AND SCIENCE

by

CHARLES A. ROMANS, JR., MAJ, USMC
B.S., Tulane University, New Orleans, Louisiana, 1977

Fort Leavenworth, Kansas
1991

REPORT DOCUMENTATION PAGE

Form Approved
OMB No 0704-0188

1. AGENCY USE ONLY (Leave blank)	2. REPORT DATE	3. REPORT TYPE AND DATES COVERED
	7 June 1991	Master's Thesis Aug 90 - Jun 91

4. TITLE AND SUBTITLE
"The Interrelationship of Stress, Safety, and Realism in U. S. Marine Corps Ground Combat Individual Skills Training"

5. FUNDING NUMBERS

6. AUTHOR(S)
Major Charles A. Romans Jr., USMC

7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES)
U. S. Army Command and General Staff College
Attn: ATZL-SWD-GD
Fort Leavenworth, Kansas 66027-6900

8. PERFORMING ORGANIZATION REPORT NUMBER

9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES)

10. SPONSORING/MONITORING AGENCY REPORT NUMBER

11. SUPPLEMENTARY NOTES

12a. DISTRIBUTION/AVAILABILITY STATEMENT
Approved for public release; distribution is unlimited

12b. DISTRIBUTION CODE

13. ABSTRACT (Maximum 200 words)

This thesis studied three critical parameters which significantly influence the effectiveness of individual combat skills training. This training must replicate the parameters expected to be encountered in any "real world" situation. The closer the leader comes to creating these conditions, the more realistic the training. Realism is enhanced the more it involves the actual stresses of battle. Safety regulations also play an important role as the leader develops realistic training. The interdependence of these three elements requires harmonization for maximum effectiveness. The author's methodological approach to research included a review of existing documentary materials which established current training philosophy, an analysis of the results of a survey sent to Marine Corps combat veterans, and a synopsis of interviews conducted with international officers. In the author's opinion, training is not being conducted as realistically as it could be, causes and countermeasures for battlefield stress are not being formally instructed, and existing safety policies are often unnecessarily restricting the quality of training.

14. SUBJECT TERMS	15. NUMBER OF PAGES
Realism, Stress, Safety, U. S. Marine Corps, Training	136
	16. PRICE CODE

17. SECURITY CLASSIFICATION OF REPORT	18. SECURITY CLASSIFICATION OF THIS PAGE	19. SECURITY CLASSIFICATION OF ABSTRACT	20. LIMITATION OF ABSTRACT
Uncclassified	Unclassified	Unclassified	UL

GENERAL INSTRUCTIONS FOR COMPLETING SF 298

The Report Documentation Page (RDP) is used in announcing and cataloging reports. It is important that this information be consistent with the rest of the report, particularly the cover and title page. Instructions for filling in each block of the form follow. It is important to *stay within the lines* to meet *optical scanning requirements*.

Block 1. Agency Use Only *(Leave blank)*.

Block 2. Report Date. Full publication date including day, month, and year, if available (e.g. 1 Jan 88). Must cite at least the year.

Block 3. Type of Report and Dates Covered. State whether report is interim, final, etc. If applicable, enter inclusive report dates (e.g. 10 Jun 87 - 30 Jun 88).

Block 4. Title and Subtitle. A title is taken from the part of the report that provides the most meaningful and complete information. When a report is prepared in more than one volume, repeat the primary title, add volume number, and include subtitle for the specific volume. On classified documents enter the title classification in parentheses.

Block 5. Funding Numbers. To include contract and grant numbers; may include program element number(s), project number(s), task number(s), and work unit number(s). Use the following labels:

C	- Contract	PR	- Project
G	- Grant	TA	- Task
PE	- Program Element	WU	- Work Unit Accession No.

Block 6. Author(s). Name(s) of person(s) responsible for writing the report, performing the research, or credited with the content of the report. If editor or compiler, this should follow the name(s).

Block 7. Performing Organization Name(s) and Address(es). Self-explanatory.

Block 8. Performing Organization Report Number. Enter the unique alphanumeric report number(s) assigned by the organization performing the report.

Block 9. Sponsoring/Monitoring Agency Name(s) and Address(es). Self-explanatory.

Block 10. Sponsoring/Monitoring Agency Report Number. *(If known)*

Block 11. Supplementary Notes. Enter information not included elsewhere such as: Prepared in cooperation with...; Trans. of...; To be published in.... When a report is revised, include a statement whether the new report supersedes or supplements the older report.

Block 12a. Distribution/Availability Statement. Denotes public availability or limitations. Cite any availability to the public. Enter additional limitations or special markings in all capitals (e.g. NOFORN, REL, ITAR).

DOD	-	See DoDD 5230.24, "Distribution Statements on Technical Documents."
DOE	-	See authorities.
NASA	-	See Handbook NHB 2200.2.
NTIS	-	Leave blank.

Block 12b. Distribution Code.

DOD	-	Leave blank.
DOE	-	Enter DOE distribution categories from the Standard Distribution for Unclassified Scientific and Technical Reports.
NASA	-	Leave blank.
NTIS	-	Leave blank.

Block 13. Abstract. Include a brief *(Maximum 200 words)* factual summary of the most significant information contained in the report.

Block 14. Subject Terms. Keywords or phrases identifying major subjects in the report.

Block 15. Number of Pages. Enter the total number of pages.

Block 16. Price Code. Enter appropriate price code *(NTIS only)*.

Blocks 17. - 19. Security Classifications. Self-explanatory. Enter U.S. Security Classification in accordance with U.S. Security Regulations (i.e., UNCLASSIFIED). If form contains classified information, stamp classification on the top and bottom of the page.

Block 20. Limitation of Abstract. This block must be completed to assign a limitation to the abstract. Enter either UL (unlimited) or SAR (same as report). An entry in this block is necessary if the abstract is to be limited. If blank, the abstract is assumed to be unlimited.

THE INTERRELATIONSHIP OF STRESS, SAFETY, AND REALISM IN U.S. MARINE CORPS GROUND COMBAT INDIVIDUAL SKILLS TRAINING

A thesis presented to the Faculty of the U.S. Army Command and General Staff College in partial fulfillment of the requirements for the degree

MASTER OF MILITARY ART AND SCIENCE

by

CHARLES A. ROMANS, JR., MAJ, USMC
B.S., Tulane University, New Orleans, Louisiana, 1977

Fort Leavenworth, Kansas
1991

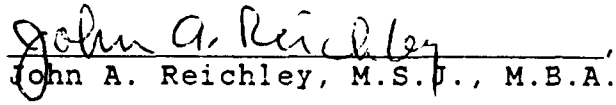
MASTER OF MILITARY ART AND SCIENCE

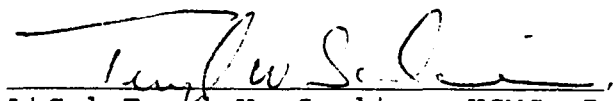
THESIS APPROVAL PAGE

Name of Candidate: Major Charles A. Romans, Jr.

Title of Thesis: The Interrelationship of Stress, Safety, and Realism in U.S. Marine Corps Ground Combat Individual Skills Training

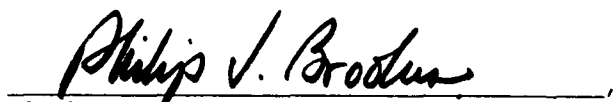
Approved by:


, Thesis Committee Chairman
John A. Reichley, M.S.J., M.B.A.


, Member
LtCol Teryl W. Scalise, USMC, B.B.A.


, Member, Consulting Faculty
LTC Robert G. Mangrum, USA, Ph.D.

Accepted this 7th day of June 1991 by:


, Director, Graduate Degree Programs
Philip J. Brookes, Ph.D.

The opinions and conclusions expressed herein are those of the student author and do not necessarily represent the views of the U.S. Army Command and General Staff College or any other governmental agency. (References to this study should include the foregoing statement.)

ABSTRACT

THE INTERRELATIONSHIP OF STRESS, SAFETY, AND REALISM IN U.S. MARINE CORPS GROUND COMBAT INDIVIDUAL SKILLS TRAINING, by Major Charles A. Romans Jr., USMC, 136 pages.

Regardless of military occupational specialty or pay grade, every Marine must be fully prepared to perform as a rifleman in a combat situation. This thesis studied three critical parameters which significantly influence the effectiveness of the individual combat skills training which every rifleman should receive. This type of training must replicate as closely as practicable the actual environmental and physical parameters expected to be encountered in a combat, or other "real world," situation. The closer the leader comes to creating these conditions, the more realistic his training is said to be.

Realism is enhanced the more it involves the actual stresses and fears of the modern battlefield. Statutory safety rules and policies also play an important role in the mind of the leader as he attempts to develop and execute realistic training. The interdependence of these three elements requires the Marine Corps leader to harmonize their influence for maximum effectiveness. It is also his challenge to carefully weigh and balance the risks associated with making his unit's training more realistic.

The author's study is apparently the first of its kind on this specific subject. His methodological approach to research included a review of all the existing documentary materials which established current training philosophy or policy, an analysis of the results of a survey sent to contemporary Marine Corps combat veterans, and a synopsis of interviews conducted with several international officers resident at the 1991 U.S. Army Command and General Staff College.

Conclusions derived from this study were done on a Corps-wide basis. That is, qualitative analytical judgements were made for the average unit or school conducting routine combat skills training. In the author's opinion, training is not being conducted as realistically as it could be, the causes and countermeasures for battlefield stress are not being formally instructed, and existing safety policies are often unnecessarily restricting the quality of training. These conclusions do not indict the world's most elite fighting organization: they merely highlight areas within the training management environment which should be targeted for immediate attention and improvement.

ACKNOWLEDGEMENTS

The author wishes to personally express his appreciation to the many people who indirectly contributed to the completion of this thesis. First and foremost, sincere thanks goes to Mr. John Reichley, Thesis Committee Chairman, who provided numerous hours of sage counsel, direction, and encouragement. Most importantly, he and Lieutenant Colonel Robert Mangrum, USAR, Consulting Faculty Member, deserve special kudos for making this study look like the author's first language really is English! Thanks also the the Committee's Second Reader, Lieutenant Colonel Teryl Scalise, USMC, for providing much needed Marine Corps focus and perspective.

Extra thanks are also provided to:

- the many Marines who took from their valuable time to respond to the survey used in the thesis,

- the international officers who graciously agreed to be interviewed,

- the professional and courteous assistance provided by the staff of the U.S. Army Command and General Staff College's Combined Arms Research Library,

- Colonel W. C. Dishman, USMC, and his staff at the Marine Air Ground Training and Education Center for providing copies of much of the documentary materials analyzed herein,

- Ann Chapman for her professional and efficient typing support,

- "Gunther" and "Brutus" (the author's loyal Great Danes) for understanding why they never got as many walks as they deserved,

- all the members of the author's staff group (4C) for carrying their "token" Marine throughout the course,

- the author's family for its prayers,

- and last but not least, to the author's Creator for providing much needed mental stamina and spiritual support.

Without the aforementioned help, this thesis would not exist.

TABLE OF CONTENTS

Masculine Gender. The use of the terms "he," "his," and "him" throughout this thesis is not in all cases intended to include both the male and female genders. Current U.S. Marine Corps policy does not allow women in offensive combat. They do receive defensive skills training, however, in both Basic Warrior Training and Marine Combat Training. It would unnecessarily complicate this thesis by attempting to distinguish between the offensive and defensive individual ground combat skills training conducted by male Marines with the purely defensive ground combat skills received by female Marines. Therefore, mainly for sake of simplicity, the terms "he," "his," and "him" will be used throughout unless otherwise noted.

LIST OF TABLES

CHAPTER 1

INTRODUCTION

Background

Combat is reality. Training is designed as preparation for combat. Therefore, training must simulate reality to the maximum degree possible if it is to properly prepare a unit or an individual for combat. While this may seem an oversimplification, it is, in fact, the essence of a prudent military training philosophy.

No doubt hundreds of philosophers and military leaders have written on the value of realistic training. But Captain Adolf von Schell, a German Army World War I staff officer, perhaps put it best in his book Battle Leadership when he said:

> At the commencement of war, soldiers of all grades are subject to a terrific nervous strain. Dangers are seen on every hand. Imagination runs riot. Therefore, teach your soldiers in peace exactly [emphasis added] what they may expect in war, for an event foreseen and prepared for will have little if any harmful effect.[1]

The current Marine Corps philosophy of training is essentially rooted in the incumbent Commandant's 1988 Marine Battle Skills Training (MBST) Program initiative. It represents a comprehensive overhaul of the way individual Marines have been trained for combat.[2] Although this program is focused on the individual, it has a profound impact on the aggregate combat capability of

units as well. From basic recruit training to basic officer training to special operations capable Marine air-ground task force training, the instructional process and system is ultimately based on preparation for combat. At all levels, the intent is to train under what is repeatedly referred to in many doctrinal publications as "realistic" conditions. That is, after tasks are mastered in a relatively stress-free environment, the conditions are modified to more accurately replicate those expected to be encountered in combat.

This thesis was undertaken to specifically address the following central question: Does U.S. Marine Corps ground combat individual skills training need to be conducted more realistically, better approximating the actual stressors of combat, while remaining within established parameters of safety, in order to be more effective?

It is not too early at this point to make the first linkage in this thesis between realism and stress in training. By its very nature combat is stressful. That is, it is full of physical and emotional factors which cause bodily and/or mental tension. Because this direct proportionality exists between combat and stress, training for combat must replicate these tensions. Only under these conditions can training be considered truly realistic.

Interest in this subject is rooted in a personal experience during 1987-1988 when the author was assigned to Division Schools, 2d Marine Division, Camp Lejeune, North Carolina, as the director and chief instructor. This organization was responsible for conducting numerous professional development and individual weapons and tactics skills courses. A secondary mission was to organize and conduct an event called the "Annual Super Squad Competition." This contest pitted the top three rifle squads in the division head-to-head in a week long series of weapons and tactics practical application tests.

The 1987 competition was conducted in a very structured, event-independent manner. All squads performed very well. The same basic events were modified dramatically the next year to better test the squads under more combat-like conditions. The results were indeed humbling. While test results were expected to be somewhat lower than those of the previous year, they were, in fact, drastically lower. Individual research, personal interviews, and independent observations surfaced a most troubling conclusion. The realistic training that was allegedly being conducted by many units within the division was not adequately replicating the conditions to be confronted in actual combat. This single experience was not the sole basis for concern and catalyst for research. But this event, combined with additional research, and the author's personal experiences over 14

years of infantry service, led to his need to better understand the concept of "realism" in training.

There is, theoretically, a continuum which describes realistic combat skills training. At one end of this spectrum is basic skills training conducted in a very sterile, stress-free, and safe environment. The other end is marked by very risky, dangerous, and unsafe training. A point exists somewhere in between where just to one side of it is the most realistic and best combat training possible. But the trainer who goes just to the other side of that point, and suffers the injury or death of a trainee, is likely to be relieved of duty and/or disciplined. The ultimate challenge is to find that point and stay just on the safe side. The problem is that the point is not a point. It is, in reality, a nebulous area caused by bureaucratic, political, social, and economical parameters which render every situation somewhat different.

The degree of realism used depends on what the unit can afford and the level of training of the individual Marines. Too much realism early in training can waste time and resources if Marines have not mastered basic tasks. Once Marines have learned the basics, however, leaders can and must add realism as quickly and aggressively as Marines can profit from it.[3]

The trainer must exercise extremely prudent judgement and common sense in order to effectively train

his unit for combat. These are not characteristics easily defined, much less taught. So the dilemma of how much is enough continues to haunt every combat skills trainer. This thesis does not portend to exactly define the aforementioned "point." It is obvious that many units always have and always will train more realistically than others. This is particularly true of units that are in a pre-deployment training cycle or are intensely preparing for commitment in response to an actual contingency. The intent herein is to locate where the Marine Corps is as an organizational entity in relation to that point, and offer suggestions for moving nearer to it.

Consider next the element of stress. It should be intuitively obvious that combat is a very real and dangerous situation. The battlefield on which it is conducted is honeycombed with obstacles. The challenge for the combat warrior has always been and, probably always will be, to overcome these obstacles and accomplish the mission at hand. It is a universal problem for humans to cope with day-to-day pressures while maintaining a level of performance which allows them to still attain both personal and organizational goals.[4] Combat imposes unique pressures, often called stressors, which similarly affect job performance. The most commonly experienced stressors in combat are extreme risk and fear, the "fog" and noises of war, discomfort and fatigue, casualties, and even boredom.[5] The very nature of combat has changed

dramatically over the centuries, primarily due to advances in weapons, technology, and tactics. But the aforementioned factors have remained a relative constant and can significantly affect the combat effectiveness of individuals and, therefore, their units as well.

Leaders must pay more than a passing concern to the nature and impact of these natural fears on their unit and its individuals, especially while training to achieve specific standards of excellence. To simply master a task without any combat stressors involved sends a dangerous signal up and down the chain of command. Senior officers could be misinformed about the true readiness of the unit while subordinates will lack the confidence of their ability to perform adequately in actual combat. No one really relishes the thought of something they are going to have to do that will be painful, unpleasant, or uncomfortable. But the leader's job is not to please his Marines: It is to ensure they are prepared to perform, and win, in combat. Therefore, it is incumbent on every Marine leader to understand and recognize the effects of stress on task performance productivity. Furthermore, they must take all steps necessary in training to prepare for the consequences of stress in battle.

The leader must recognize the potentially overwhelming effect that stress can have on his unit. In developing training he must also recognize that stress is not just a destructive force which negatively harms

productivity. The timeless adage of "no pain, no gain" actually has real military merit when taken in proper context. There is much to be gained by experiencing the real stresses of combat before experiencing actual combat itself. Simply said, a human can much better adapt to a certain feeling if it is not a new experience. For example, if a Marine is exposed to stressor "X" in training, he will learn what it feels like and develop ways to deal with it. Then, in actual combat when he experiences "X," he will more than likely be much better prepared to handle the situation.

Stress can even be used to overcome unpleasant or painful situations. The key is recognizing its potential, both positive and negative, and properly preparing for it prior to engaging the unit and its members in combat. It is far too late and woefully inadequate to address this subject sitting on a ship or aircraft en route to a combat zone. Thus, its importance and interrelationship to training.

A major concern of the author regarding combat stress is the percentage of training time dedicated to a discussion of its causes and practical application countermeasures for dealing with its effects. Although not a combat veteran with personal experience in this matter, the author's intuitive perception is that this percentage is grossly disproportionate to the percentage of its actual impact on mission accomplishment in combat.

The survey instrument and international officer interviews used in this thesis address this perception.

It appears that combat stress, fear, and fatigue are often addressed only as a subset of leadership instruction and not as an integral element of the training management system.[6] This may be, in part, due to the perception associated with leadership instruction. Most believe it to be nebulous, vague, and extremely subjective and, as a result, give it far less than a top priority in the hierarchy of scheduled training subjects.

A lack of objectivity often leads to a lack of focus and priority. There are numerous reference publications, manuals, directives, policy letters, and other similar documents generated by the Marine Corps headquarters which provide general guidance about the conduct of realistic training. (These are analyzed in chapter 4 of this thesis.) However, there is woefully little information provided in training publications specifically addressing the effect of stress on the efficiency of individuals and units in combat. Coincident with that deficiency is a lack of education and direction for methods of training to counteract its severely debilitating effects.

Enormous volumes of research have been published documenting the causes of stress and countermeasures for dealing with its potential effect on mission accomplishment. This thesis will not attempt to duplicate

or expound on those efforts. Its intent is to focus on the current U.S. Marine Corps approach to stress as it relates to ground combat individual skills training.

Both realism and stress are essentially non-quantifiable and relatively intangible in nature. Therefore, they tend to be discussed only abstractly in broad philosophical terms and rarely receive the full attention they deserve in training development. They must be approached as though they were the more tangible subjects of tactics and weapons employment. The author recognizes these latter two subjects are not wholly quantifiable either. However, relatively speaking they are, and as a consequence receive an overabundance of attention. Another relative intangible and not easily quantifiable parameter is the element of safety.

The trainer must also be extremely conscious at all times of all established safety restrictions. These restraints may be either written into local standing operating procedures or may be oral guidance received from the training supervisor's superiors. These safety limitations are, without argument, necessary and essential considerations in the preparation for and conduct of combat training. The problem is that they have become in many instances the "tail that wags the dog." The leader is constantly faced with this dilemma in preparing for combat -- the inherent conflict between the simulation of realism and concern for not exceeding established safety

constraints. These two parameters pull the training manager in bipolar directions. The closer combat conditions are replicated, the more dangerous the training and the more likely personal injury could occur. But should this not be the price paid to adequately prepare the Marines on the ground to accomplish the mission? The alternative to numerous injuries in peacetime may be a plethora of body bags in war.

Safety rules and regulations are usually perceived by the trainer in a negative fashion. They are presumed to have been created by some bureaucrat who was intent on placing more unnecessary restrictions to combat-like training. This perception of the "albatross" of safety may, in fact, have some merit. However, the safety vs. realism dilemma should never be used as an excuse for not including combat stressors in the conduct of all ground combat skills training.

Published ground safety regulations often do not appear to be written in terms of common sense nor do they fully recognize the inherent risks in training for combat. They are written more in terms of the unnecessary expenditure of funds, claims against the government, and endangering public relations.[7] The author does not question the validity of these claims. The essence of the problem is a matter of priority. No one should condone wanton negligence and stupidity on the part of one who is responsible for the conduct of training. But senior

leaders must lead the way by demonstrating the moral courage necessary to defend the junior trainer whose trainees experience accident, injury, or even death during the conduct of realistic training. This does not imply that dismemberment and death are necessary prerequisites for combat-like training. The author's concern is that the system has become so protective of itself that it is stifling the injection of necessary risk in combat training. Sadly, the end result of many training accidents is often an overreaction which invariably places more safety restrictions to this factor called realism in training.

The latest major training initiative within the U.S. Marine Corps comes as a result of a training and education conference conducted at the Marine Corps Combat Development Command in October 1989. The creation of a unified Training Management System (TMS) is finally becoming a reality.[8] The TMS will tie together all elements of the training apparatus in terms of both individual and collective training requirements and standards. The message announcing this program discusses "realistic and effective training" and the "aggressive pursuit of combat readiness."[9]

In addition to the new TMS and MBST Program, major rewrites of several Marine Corps Orders are currently underway.[10] These directives reflect new organizational structuring within the Marine Corps training and education

system, and also the vision, priorities and focus of combat training for the next generation. Most are currently in draft format and should be followed up closely by future researchers of this subject for final decisions made therein. It is the author's hope that anything helpful derived from this thesis will be incorporated into these or other related documents and publications.

The conceptual framework around which the TMS is based is the Systems Approach to Training (SAT) process which has been used for many years within the Marine Corps. What this author fears is that the TMS will not generate sufficient focus or a more specific definition of a critical subelement of the SAT -- the conditions under which tasks are judged to given evaluation criteria.[11] It is these conditions which should ultimately provide the combat-like stress that replicates true realism. It is also these conditions which will be created in strict conformance with existing safety parameters. Thus, again notice the ever present interdependence and interrelationship of realism, stress, and safety in training.

The Marine combat leader must be able to carefully balance induced stress and safety in the preparation for and conduct of truly realistic training. It should, however, be obvious that the training manager must first have a complete understanding of the parameters by which

both stress and safety impact on individual and unit training. Both can coexist to the benefit of the individual Marine and the unit as a whole. In fact, they must. But first, their interrelationship must be understood.

The author approaches this thesis with several perceptions about current Marine Corps ground combat individual skills training vis-a-vis realism, stress, and safety. Those beliefs are that the training being conducted is not as realistic as it could be, stress and countermeasures for dealing with its effects are not consciously included in training, and safety concerns are stifling the trainer's ability to better replicate combat-like conditions in training. These perceptions are not meant to be an indictment of any individual, unit, or of the entire United States Marine Corps. The author merely intends to prove or disprove his perceptions by making these critical observations and then assessing their validity.

In an unofficial poll, several senior Marine Corps officials were split in opinion over the author's choice of a thesis subject. Some said it was a matter of extreme personal interest to them as well as long overdue for formal study. Others said it was a waste of time because the answer to the thesis question was obvious to even the casual observer -- the experienced, senior trainer/ commander simply knows just how much realism is prudent

and his judgement should go without question. The author chose to pursue the subject to satisfy his own curiosity.

Purpose

The purpose of this study is to focus on the interrelationship of realism, stress, and safety in the conduct of Marine Corps ground combat skills training. The preponderance of effort will be toward providing a more insightful look at the impact of combat stressors on task performance in a safety constrained environment. It is not enough to simply recognize that stress affects performance. What is important is how stress affects performance and, more importantly, how can the trainer compensate for and manipulate its effects.

Combat skills training is not an exact science. It is planned for and conducted by human beings for execution by other human beings. To the author this means there exists no perfect solution to the dilemma of the trainer in his attempt to balance realism, stress, and safety. What can be done is to recognize that, perhaps, the trainer needs more detailed guidance and offer specific suggestions how he might conduct more realistic, and yet, not unsafe training. To simply "legislate" in doctrinal publications that training must be realistic, stressful, and safe in order to be effective does not provide much direction or helpful guidance. Some degree of specificity

and focus along with detailed recommendations for establishing realistic training conditions would appear to be necessary. Large service corporations probably do not simply tell their branch stores to satisfy the customers without detailing many ideas as the most effective and efficient way to do so.

The unpleasant truth is that there can never be a fully satisfactory solution to the problem of balancing requirements for realistic training versus the rights and safety of the individual Marine.[12] Human judgement and initiative will always be involved, and those elements are but two of the individual trainer traits which are never perfect and contribute to the art of war.

It is not the purpose of this thesis to delve deeply into the subjects of politics, society, and the economy concerning restrictions to training. Each of these, individually considered, can significantly impact on the thesis question but would expand the parameters of this study well beyond that which is attainable within given time constraints. What politicians and society will accept and what the budget can sustain certainly has a significant impact on the quantity and quality of training conducted. But, relatively speaking, these are ever changing variables which need not necessarily be addressed to answer the thesis question in the affirmative. Nor will the element of safety receive extensive analysis.

Only its potential delimiting effect on the conduct of realistic training will be considered.

In summary, this thesis will attempt to better define realism in combat training, consider how the effects of combat stress is being taught in our Systems Approach to Training, look at the impact of safety on the conduct of training, and offer suggestions for improving the interrelationship of these three parameters.

Assumptions

The assumptions below are made even though United States Marines are currently deloyed in support of Operation Desert Storm in the Persian Gulf. Many of these assumptions could be radically altered or even deleted as a result of that war. The author continually monitored this situation as it impacted on this study and updated these assumptions as necessary and as practicable.

(1) That the combat stressors which have impacted on Marines in the past will be the same in the future.

(2) That the current MBST Program and overall training policies and philosophies within the Marine Corps will remain relatively constant in the near future.

(3) That existing ground safety regulations will remain relatively constant in the near future.

(4) That the attitude of American society, which is intolerance toward peacetime military training

accidents, injuries, and deaths, will remain relatively constant.

(5) That economic restrictions on training budgets will not significantly improve in the near future.

(6) That the Marines who respond to a survey to be used in this thesis will represent an adequate cross section of the entire Marine Corps' trainer and trainee population.

(7) That an analysis of all units and formal schools in the Marine Corps which provide ground combat individual skills instruction is not necessary in order to draw conclusions. (See "Limitations" later in this chapter.)

(8) That the reduction in percentage of ground training mishaps, and perceived major improvements in individual skills training over the past two decades are not necessarily indicative of optimal performance in the conduct of the training occurring at the time of this study.

(9) That the quantity and quality of ground combat, individual skills training is relatively uniform throughout the entire Marine Corps, with the possible exception of special operations units and other priority training organizations.

Definition of Key Terms

(1) Realism - the ability to replicate as closely as possible the conditions under which combat is experienced.

(2) Combat Stressors - those conditions or actions which replicate actual combat and have a negative or positive impact on the ability of individuals or units to accomplish an assigned task or mission. (Examples: continuous operations, night operations, sleep loss, the fog of war, noise, etc.)

(3) Safety - those written or spoken regulations and parameters that create socially and politically acceptable norms in the protection against training accidents, injuries, and deaths.

(4) Training Manager - any Marine of the grade of corporal (E-4) and above. (Will also be used interchangeably with the word "leader" and "trainer.")

(5) Individual Skills - those tasks performed uniquely by individual Marines, or done together with other individuals, thereby constituting team or collective tasks, and which prepare an individual to perform specific duties and tasks related to an assigned MOS and duty position.[12] Examples are: physical conditioning/ stamina, NBC defense/decon, tactical reporting using field radios/telephones, camouflage/cover/concealment, personal hygiene, calling/adjusting supporting arms, small arms

marksmanship (day and night), individual tactical movement (day and night), reaction to live fire (direct and indirect), obstacle and minefield emplacement/breeching, crew served weapons employment, identification and treatment of combat stress, hand-to-hand combat, first aid, medical evacuation procedures, land navigation, and survival training.

(6) Marine - this term is used throughout as the individual trainee target population of this thesis. U.S. Navy corpsmen, doctors, and chaplains are technically also the subject of some of the training described herein. For simplicity, use of the word Marine actually encompasses all grades of Marines and Sailors.

Limitations

These are potential weaknesses and constraints in this thesis beyond the control of the author.

(1) A primary limitation of this study is the subjectiveness of the topic. Realism, stress, and safety are all relative terms not particularly tangible or easily quantifiable.

(2) Another limitation is the author's physical separation from the bulk of Marine Corps documentary policy and policy makers. This appears a seemingly insignificant problem, but research has proven difficult in some aspects being geographically distant from the

Marine Corps Combat Development Command at Quantico, Virginia (the Marine Corps' equivalent to the U.S. Army's Fort Leavenworth), and Headquarters, U.S. Marine Corps in Washington, D.C.` Mail, telephone, and tele-fax technology were helpful in overcoming this constraint but were not the perfect substitute for personal, on-site research. In some ways the author has felt like an archaeologist attempting to do research on a tomb in Egypt, from an office in New York.

(3) Another limitation anticipated is the target population of the survey sent to Marine Corps contemporary combat/crisis veterans. (See chapter 3 for a more detailed discussion of the survey, chapter 5 for an analysis of survey results, and appendix B for a copy of the survey instrument.) It has been assumed in this thesis that the survey population responding will be adequate to draw necessary conclusions. However, it was decided not to send surveys to the Marines currently engaged in war in the Persian Gulf. (This accounts for almost one-half of the U.S. Marine Corps which was deployed to the Persian Gulf. Prudence and mail turnaround time rendered their participation undesirable.) It is believed their comments on this study would have been exceedingly valuable. A recommendation for further study addresses this issue. (See chapter 7.)

(4) A final limitation may be the author's personal lack of combat experience. It is believed this

perspective could have assisted in drawing final conclusions. However, this absence of personal knowledge may, in fact, not be a limitation at all. It may actually be to the benefit of the research inasmuch as it precluded the author from having any preconceived notions about conclusions based purely on personal experience.

Delimitations

These are self-imposed constraints which have rendered this study feasible.

(1) This thesis focuses on contemporary Marine Corps training philosophies and policies and combat/"real world" experiences since the early 1980's. Contemporary Marines in this study are defined as those of the current post-Vietnam generation whose training environment is described by relatively the same economic constraints, political and societal standards, weapons, technology, tactics, training philosophy, and other considerations.

(2) This thesis considers only ground combat individual and unit training. Aviation combat training is subject to many of the same training and safety parameters. However, a detailed study of the differences would expand the scope of this thesis beyond that which would be reasonable.

(3) This thesis was concerned with only individual skills training. Realistically speaking, however, it is

also concomitantly assessing unit training as well inasmuch as those collective tasks are, for the most part, an aggregate of numerous individual skills. (See page B-5 for a more detailed definition of individual skills as used in this thesis.)

(4) Yet another delimitation is the scope of the ground combat training population to be evaluated. The target audience for the thesis theoretically includes all ground combat units as well as those formal schools which instruct individual ground combat skills. The study has primarily focused on only the first two phases of the Marine Battle Skills Training Program -- Basic Warrior Training (conducted at both Marine Corps Recruit Depots) and Marine Combat Training (conducted at the two Marine Corps Schools of Infantry) as well as officer basic training conducted at The Basic School in Quantico, Virginia.

(5) The author's attendance at the U.S. Army Command and General Staff College was a unique opportunity for a Marine officer to be closely exposed to the careers of 1,000 Army majors. Many had contemporary combat/"real world" crisis experience and could have been surveyed or interviewed. The constraint of time and the author's desire to keep research Marine-specific (excepting the interview of the six international officers) delimited this population.

Significance of the Study

Ground combat is perhaps the number one priority task that all United States Marines prepare for. All else is supporting and secondary. Therefore, the training conducted in preparation for actual ground combat must be truly thorough, comprehensive and, above all else, realistic. The goal of this thesis was to ascertain whether the Marine Corps was not doing all it can in this regard. Any fault concluded as a result of research would undoubtedly not be due to gross negligence. It would likely be simply due to a lack of specificity in the "how to" element of conducting realistic training, a misplaced emphasis on combat stress instruction, and often self-inflicted strangulation with over-zealous safety rules and regulations. This thesis attempts to verify or deny these beliefs and, where possible, rectify the situation with recommendations.

ENDNOTES

[1] Adolf von Schell, Battle Leadership, (Ft. Benning, GA: The Benning Herald, 1933), 25.

[2] Commandant of the Marine Corps, "White Letter 9-88 - Marine Battle Skills Training," Washington, D.C.: Marine Corps Headquarters, 19 October 1988, 1.

[3] U.S. Marine Corps, Fleet Marine Force Reference Publication 0-1A - How to Conduct Training, (Quantico, VA: Marine Corps Combat Development Command, 1989), 1-2.

[4] U.S. Army Field Manual, FM 26-2, Management of Stress in Army Operations, (Washington, D.C.: Department of the Army, 1986), 3.

[5] U.S. Marine Corps, NAVMC 2767, (User's Guide to Marine Corps Leadership) Lesson 84/217 - Combat Leadership, (Washington, D.C.: Marine Corps Headquarters, 12 March 1984), 6.

[6] Ibid., 1 and "Senior Officer Training Management Seminar Briefing Outline and Charts (Draft)," Quantico, VA: Marine Air-Ground Training and Education Center Standards Division, Marine Corps Combat Development Command, Circa October 1990, 2.

[7] U.S. Marine Corps, Enclosure (1) of Marine Corps Order 5100.8E - Marine Corps Ground Occupational Safety and Health Program, (Washington, D.C.: Headquarters, U.S. Marine Corps, 1986), 1.

[8] U.S. Marine Corps, Marine Corps Order 1500.40A (Draft), Marine Corps Unit Training Management System (TMS), (Washington, D.C.: Headquarters, U.S. Marine Corps), 1.

[9] Commandant of the Marine Corps Message 031952Z, ALMAR 104-90, "Introduction of the Marine Corps Training Management System," May 1990, 1.

[10] USMC, MCO 1500.40A (Draft), 1; U.S. Marine Corps, Marine Corps Order 1500.42B (Draft), Management for Marine Corps Formal Schools and Training Centers (Washington, D.C.: Headquarters, U.S. Marine Corps, 1; and U.S. Marine Corps, Marine Corps Order 1553.1B (Draft), The Marine Corps Training and Education System, (Washington, D.C.: Headquarters, U.S. Marine Corps), 1.

[11] U.S. Marine Corps, Marine Corps Order 1553.1A - The Systems Approach to Training, (Washington, D.C.: Headquarters, U.S. Marine Corps, 10 January 1984), 2 and USMC, MCO 1553.1B (Draft), 2.

[12] MCO 1553.1B (Draft), Encl (3), 3.

CHAPTER 2

REVIEW OF LITERATURE

General

The review of literature is presented to familiarize the reader with the key sources of knowledge (normally documentary) studied and incorporated in the thesis. In this study, all sources were unclassified and can be categorized into three basic subject areas.

The first area is the current training philosophy and policies established within the Marine Corps. Most of the literature for this part of the study is found in official U.S. Marine Corps directives, reference publications, and policy letters. Some is still in draft format. This has the potential of appearing to base analysis and conclusions on unofficial material. The author is of the opinion that the portions of these references used in this thesis will not be significantly altered in intent when they are finalized and, therefore, are reliable sources. (As previously noted, it is hoped that perhaps elements of this thesis and follow-on studies by others will be incorporated into those draft documents before they become official.) Several programs of instruction for formal schools which instruct ground combat individual skills were also reviewed as they are the documents which put into action policy and philosophy.

The second area involves the matter of stress as it relates to simulated combat conditions and its effect during individual and unit task performance. As previously mentioned, libraries of information on this subject have been written. The focus of this thesis has been on the documentary material which associates stress with individual task performance.

The final area addresses the regulations which provide safety parameters and guidance. Materials researched are centered on the factual and perceptual aspects of safety as they affect training.

A new system recently fielded within the Marine Corps is called MCLLS - Marine Corps Lessons Learned System. It was used in a limited capacity in this thesis. However, it has great potential utility as a standing analytical tool for evaluating and disseminating the impact of training effectiveness. It is managed by the Standards Division of the Marine Air-Ground Training and Education Center at Quantico, Virginia.

The author has found nothing remotely related to the specific question posed in this thesis in any materials. This should not imply that nothing exists. It does mean that exhaustive documentary research and telephonic inquiry with numerous current "policy makers" at the Marine Corps Combat Development Command has not revealed any similar research. As previously stated, the lack of direct access to related files, studies, papers,

and other documents which may exist in Quantico or Washington adds an additional unknown. Nonetheless, ample research material was deemed available to conduct a thorough analysis of the stated controlling idea of this thesis.

The succeeding subsections of this chapter provide a brief synopsis of only the significant literature sources used in this thesis. All references consulted are listed in the bibliography.

Training Policy/Philosophy Related Literature

The author uncovered most of what he believes to be the critical documents which provide current Marine Corps training policy and philosophy. All of them discuss the value of realistic training in terms of simulating combat, making training physically and mentally tough, and creating conditions which replicate those expected on the battlefield. The philosophy documents focus on a "back to basics" theme and the belief that "every Marine is a rifleman." However, for a seemingly well thought out and organized training policy (presumably drafted and at least approved by seasoned combat veterans), there is a severe paucity of specific guidance in training management, execution, and evaluation publications as to how to really make training realistic.

Especially noticeable, and of great concern, is the virtual nonexistence of discussion and guidance of the effect of combat stressors on task proficiency performance. Although analytical studies exist, they are not incorporated into training execution publications.

The following documents researched were instrumental in defining the current policy and philosophical direction for training within the Marine Corps:

Marine Corps Order 1500."X" (Draft) -- "Marine Battle Skills Training Program" provides information, policy, intent, and execution instructions for the major, focal individual skills training program in the Marine Corps.

Marine Corps Order 1500.40 -- "Marine Corps Training Philosophy, Definitions, Priorities and Training Requirements." The title is self-explanatory. Order is currently ten years old without revision.

Marine Corps Order 1500.40A (Draft) -- "Marine Corps Unit Training Management System (TMS)" will formally establish a TMS within the Marine Corps, focusing on the development of individual and collective, performance-oriented training relative to assigned combat missions. It will cancel MCO 1500.40.

Marine Corps Order 1500.42A -- "Management for Marine Corps Training Institutions" defines institutional training and command relationships between the Marine

Corps headquarters and the formal training s hools. The draft version of the next edition of this order was reviewed. While it does contain many changes, none were significant to this thesis.

Marine Corps Order 1553.1A -- "The Systems Approach to Training" assigns responsibility for the development of performance-oriented training standards and the systematic design, development, implementation, and evaluation of training programs. The draft version of the next edition of this order was reviewed. It absorbs the SAT into a more broadly defined training and education system. It also provides key definitions and responsibilities for implementation of the total force system for training.

Marine Corps Order 3501.1B -- "Marine Corps Combat Readiness and Evaluation System (MCCRES)" establishes an evaluation system from which training programs can be developed and evaluated for effectiveness and efficiency.

Marine Corps Order 1510.35A -- "Individual Training Standards (ITS) System for the Infantry (Enlisted) Occupational Field 03" and the "Battle Drill Guide and Individual Training Packages" is a "how-to" modular guide for planning and conducting individual and unit training for infantry squads, platoons, and companies.

Marine Corps Institute Order P1500.44B -- "Marine Battle Skills Training/Essential Subjects" is a condensed training aid similar in scope, intent, and construction to MCO 1510.35A noted above.

Fleet Marine Force Reference Publication O-1 -- "Unit Training Management Guide" is a precursor to a Fleet Marine Force Manual on the same subject, and provides philosophical direction and policy for establishing training programs.

Fleet Marine Force Reference Publication O-1A -- "How to Conduct Training" is a precursor to a Fleet Marine Force Manual, and provides broad, generic fundamentals for the conduct of training.

ALMAR 104-90 (CMC msg 031952Z MAY 90) -- "Introduction of the Marine Corps Training Management System," a message sent to all Marine units announcing the plan for implementation of a unified system for amalgamating all elements of the Marine Corps training system apparatus.

"The Commandant's Report to the Officer Corps" dated 1 May 1989 was mailed from the Commandant to all U.S. Marine Corps officers providing broad philosophical outlook and vision for the future, to include training programs and goals.

"Commandant of the Marine Corps White Letter 9-88 -- Marine Battle Skills Training" dated 19 October 1988 is a precursor to Draft MCO on the same subject, and outlines implementation plan for MBST.

Testimony of Brigadier General John P. Brickley, USMC, Deputy Director, Marine Corps Training and Education Center, to the United States House of Representatives

Subcommittee on Military Personnel and Compensation regarding "Military Training and Safety" on 27 July 1988. A Congressional hearing was conducted as a result of several deaths in U.S. Navy recruit training. Each service had an opportunity to testify in order to outline its philosophy and approach to the training versus safety dilemma.

Stress Related Literature

There is no shortage of information on the general subject of battlefield stress. Many studies, both military and nonmilitary, exist which define the effect of stress on mission accomplishment. Much of the military literature on stress is found in leadership materials. Barely any mention of it is made in Marine Corps training guidance and education documents. To the author, this is a large part of the problem. It is identified by many different names: battlefield stress, shell shock, combat neurosis. No matter what it may be labeled, this condition carries the stigma of being a factor that does not readily lend itself to quantifiable study. Therefore, it is too often neglected. The author did not intend to go into an in-depth study of combat stress in terms of historical perspective. What he did hope to do was provide an understanding of what it is and how it might be

better implemented into individual and unit training in preparation for combat.

This list of documents provided the author the essential insight into the relationship of stress to task performance:

U.S. Army Field Manual 26-2 -- "Management of Stress in Army Operations" is a basic guide identifying sources of stress and battle fatigue, recognition signs, and stress management principles.

"Dilemmas Concerning the Training of Individuals for Task Performance Under Stress" is an article published by Giora Kienan and Nehemia Friedland in the Journal of Human Stress, winter 1984. An excellent, brief analytical article outlining the impact of varying degrees of stress on skill productively.

"Fear and Motivation: An Amphibious Warfare School Battle Study." An abridged version published in the Marine Corps Gazette in August 1988 with a very good synopsis of the impact of fear and stress in combat with recommendations for training countermeasures.

"Battlefield Stress: Causes, Cures, and Countermeasures" -- a U.S. Army Command and General Staff College Master of Military Art and Science thesis done by Major Dale B. Flora in 1985. A comprehensive study with good "before" and "during" combat recommendations for negating the detrimental effects of stress.

"Combat Effectiveness: Cohesion, Stress, and the Volunteer Military" is a book by Sam Sarkesian completed in 1980. Provides a very detailed insight into the subject that deals more with the problem than the solution.

"A Conceptual Model of Behavior Under Stress with Implications for Combat Training" is a Human Resources Research Office technical report conducted in 1966. Provides a somewhat complex analysis offering possible designs for stress-retardant training.

U.S. Army Field Manual 8-51 (Draft) -- "Combat Stress Control in a Theater of Operations (Tactics, Techniques, and Procedures)." An excellent, comprehensive, publication identifying risk factors, leader counteractions, and control and management techniques.

Safety Related Literature

Safety will be discussed in terms of current written policy and the perspective of contemporary society concerning military training accidents. The author could not locate any publications that were uniquely concerned with safety vis-a-vis ground training within the U.S. Marine Corps. Safety is addressed tangentially and circumstantially in some of the policy/philosophy

literature used in this thesis. The following additional documents were reviewed:

Marine Corps Order 5100.8E -- "Marine Corps Ground Occupational Safety and Health Program." An eleven year old directive primarily concerned with installation/ civilian safety and related programs. Provides only very generic safety guidance.

Marine Corps Base Camp Lejeune Order P1102.1K -- "Range Control SOP" is a relatively standard installation level directive which provides live fire range and maneuver area safety considerations and restrictions.

Marine Corps Air Ground Combat Center Twentynine Palms Order P3500.4A -- "Range Control SOP" is another major installation level directive providing instructions on firing range, training area, and airspace control. It provides slightly more detail on the specific issue of safety, probably because of the large number of external units which conduct major combined arms exercises within its boundaries.

Testimony of Brigadier General Brickley, as previously noted in the previous subsection of this chapter. This source also provides ground training mishap statistics from 1985-1988 and a philosophical discussion of the training versus safety dilemma.

Department of Defense Instruction 6055.1 -- "DoD Occupational Safety and Health Program" is the capstone military safety document. Tasks the military services

with establishing aggressive safety programs. Provides a table for deriving risk assessment codes (RAC) based on mishap probability and hazard severity.

Secretary of the Navy Instruction 5100.10G -- "Department of the Navy Policy for Safety, Mishap Prevention, and Occupational Health Program" tasks the CMC with integrating safety precautions into training programs. It also requires risk management techniques and RAC's be applied to the planning of all readiness training.

CMC Message 160315Z Nov 90 -- "Mishap Summaries and Trends 1-91" provides training fatality statistics for 1988-1990 and a "safety first" focus for training in 1991.

ALMAR 172/90 (CMC Message 051957Z Aug 90) -- "Marine Corps Ground Mishap" provides pre-FY 91 focus and CMC's personal interest on the subject of all accidents.

"On Duty, Ground Training Mishaps and Fatalities Report" circa 1 February 1990 prepared by MAGTEC, MCCDC provides 1988-1990 injury and fatality statistics for the entire U.S. Marine Corps.

"Report of Marine Corps Recruit Training Deaths" circa 1 February 1990 provides fatality statistics from both MCRD's from 1972-1987.

Department of Defense Inspector General Memorandum of 15 January 1991 regarding a General Accounting Office (GAO) letter dated January 7, 1991 "Training Safety Across the Four Services" notifies the Assistant Secretary of

Defense (Force Management and Personnel), and thereby the U.S. Marine Corps as well, of a GAO inquiry into training safety. The GAO audit will be conducted throughout the first half of 1991 as a result of civilian population complaints regarding the services' lack of safety considerations when training personnel. The final results of this study should be carefully examined by future researchers of the subject of this thesis.

CHAPTER 3

METHODOLOGY

General

The thesis consists of three basic methodological parts. The first is a factual description of exactly what the Marine Corps' policy and philosophy toward realistic ground combat training is today. This was done by conducting an analysis of all documentary materials which outline these policies and philosophies. The first part also discusses the issues of safety and combat stress as they impact on the conduct of ground combat individual skills training. The overall goal of this part was to essentially define baseline parameters of existing policy and philosophy.

Survey

The methodology used in the second part was an analysis of the results of a survey. Appendix B depicts a blank copy of the survey instrument used and chapter 5 provides an analysis of the survey results. The purpose of that research tool was twofold.

The survey was intended to solicit the perspective on the thesis subject of those contemporary Marines who have been in actual combat (or in an environment that

caused them to put into practice the skills they were taught in training), and who are pupils of current Marine Corps training policies and philosophies. Contemporary in this study was defined as participation in combat or a "real world" crisis/contingency since 1982.

The year 1982 was selected as it was the year within the past decade, subsequent to the end of the Vietnam War, when large (battalion-sized) Marine Corps units were once again employed in response to national security contingencies. The overriding intent of the survey was to ask participants to compare how they perceived the effectiveness of their combat skills training both before and after they were actually required to exercise those skills in a real crisis situation. Particularly desired was their recommendations for improvement.

The survey was critical to this study because it provided a source of candid opinion detached from the author's perceptions. Inasmuch as it was the author's first experience with the creation, distribution and analysis of a survey instrument, many lessons were learned which will be addressed in chapter 7 (conclusions and recommendations).

A particular difficulty was encountered locating qualified survey participants. It was estimated that the number of eligible participants still on active duty was probably less than 5,000. In order to locate this

target population, and without interfering with Marines deployed in support of Operation Desert Storm, packets of surveys were mailed to several major CONUS installations and several local Marine Corps units within the Fort Leavenworth, Kansas area. These organizations were:

-- Drill Instructor's School, MCRD, San Diego, CA
-- Drill Instructor's School, MCRD, Parris Island, SC
-- Recruit Training Regiment, MCRD, San Diego, CA
-- Recruit Training Regiment, MCRD, Parris Island, SC
-- Recruiter's School, MCRD, San Diego, CA
-- U.S. Marine Corps Command and Staff College, Quantico, VA
-- U.S. Marine Corps Amphibious Warfare School, Quantico, VA
-- The Basic School, Quantico, VA
-- Headquarters, 9th Marine Corps District, Shawnee Mission, KS
-- Marine Corps Reserve Support Center, Overland Park, KS
-- Marine Corps Finance Center, Kansas City, KS
-- Staff Noncommissioned Officer's Academy, Quantico, VA
-- School of Infantry, MCB, Camp Lejeune, NC
-- Marine Corps Engineer School, MCB, Camp Lejeune, NC

-- Marine Corps Service Support Schools, MCB, Camp Lejeune, NC

In order to supplement the 500 total surveys mailed to organizations, the author also solicited voluntary participation Corps-wide. This was done by letter request to the Public Affairs Division at Headquarters, U.S. Marine Corps. The solicitation was published in "MCNEWS 3-91," a weekly informational message released to all Marine Corps activities.

International Officer Interviews

The author's attendance at the U.S. Army Command and General Staff Officer Course provided a unique opportunity to solicit the varied and invaluable personal experiences of 95 international officers from 65 foreign countries. A selective, voluntary interview of several international officers provided a form of global, free world relative perspective on this subject. Chapter 6 describes the questions used in the interviews and an analysis of the results.

CHAPTER 4

ANALYSIS AND DISCUSSION OF DOCUMENTARY DATA

Realism

This chapter identifies the Marine Corps' approach to realistic ground combat individual skills training by analyzing the content of all known official documentary material governing the subject. It further discusses how battlefield stress is formally instructed and, finally, describes how the concept of safety in training is promulgated to all trainers. Although this chapter is subdivided and analyzed in three different sections, many ideas and concepts synthesized herein are common to all three given the interrelationship and interdependence of realism, stress, and safety.

Two elements provide the foundation and impetus for the trainer in the development of individual skills training. First is the Systems Approach to Training (SAT) which establishes policy and assigns responsibility for the development of performance oriented training standards. Second is the Marine Battle Skills Training (MBST) Program which identifies the philosophical approach to the conduct of combat focused training.

Using the SAT, a series of standards for a given military occupational specialty (MOS) is created in a five step process.[1] Subject matter experts (SME) analyze the

MOS for individual requirements, then design specific learning objectives. Next, specific tasks are developed that will satisfy the required learning objectives. These tasks are then implemented and data is collected by the SMEs documenting the results of training to the initially proposed evaluation criteria. Finally, the data is analyzed for validity and possible revision of tasks and/or evaluation criteria. These tasks and criteria are then updated and the cycle is repeated until agreement is ultimately reached on the final format of published standards.

Perhaps even more important is the identification of the conditions under which the tasks are to be evaluated. These conditions include the equipment, manuals, external assistance required and, more importantly, they specify the special physical demands, environmental conditions, and exact situations under which the task is tested. The current Marine Corps Order (MCO) governing SAT and the proposed draft MCO on the training and education system go no further in defining conditions. These directives merely go on to task the Headquarters, U.S. Marine Corps Training Department (the forerunner of the current Marine Air-Ground Training and Education Center (MAGTEC)) to create the tasks and training standards, assign responsibility to the Marine Corps Development and Education Command (now called the Marine Corps Combat Development Command (MCCDC)) to

administer the SAT through the formal schools, and direct Fleet Marine Force (operational unit) commanders to train to headquarters directed standards.[2]

Unless the trainer is provided some degree of specificity in creating task performance conditions, a whole host of variables enters into the equation. The trainer's personal experience, confidence, and imagination, equipment availability, the degree of financial support available, the freedom (or lack of) to take risks given by superiors, training time available, and other considerations all factor into the specific conditions which will ultimately be adopted to assess task performance. Unit and individual proficiency at the time training is planned also merit consideration as they can significantly impact training effectiveness. Conditions will undoubtedly be simpler and less likely to negatively effect task performance for an individual or unit performing the task for the first time. Such is often the case during basic recruit and officer training, and for units in a basic skills training phase. But as individual and collective proficiency improves, the conditions should necessarily become more complex and better approximate a combat environment -- that is, become more realistic.[3]

Consider a simple example. Three lieutenants in the same unit with Marines of equal training proficiency are training their Marines in the task of reacting to enemy direct fire. Lieutenant "A" has his Marines in only

their utility uniform and conducts the training in garrison. He merely lines them up and shouts "bang" and then requires them to perform the established actions within the prescribed times. Lieutenant "B" remains in garrison with his Marines but has them don full battle gear and equips them with MILES gear before they are tested. Lieutenant "C" has his Marines don full battle gear, force marches them ten miles to a field training area, and immediately goes into task evaluation using paint guns loaded with paint pellets.

Given all things equal, few would probably doubt that Lieutenant "C" has provided, albeit the most dangerous, the most realistic training. Lieutenant "B's" was somewhat less realistic but more so than Lieutenant "A's," whose was the most sterile. It was he who established the conditions. Perhaps the other two officers would have done likewise had the specified conditions prescribed in the task list manuals been more explicit, or at least offered suggested conditions for more advanced levels of training. Some would suggest that the officers' personal experiences in similar training should be sufficient for future employment in the training of subordinates. Others would probably suggest a more directional or directive approach in outlining task performance conditions. Other formal training-related publications were consulted to ascertain whether more definitive guidance on task conditions existed.

The MCO governing training philosophy, priorities, and requirements is old as far as directives are concerned (published in 1980) but is currently in the process of revision.[4] Neither the MCO currently in force nor the draft of the rewrite contain real philosophy or policy vis-a-vis task performance conditions. The existing order only tasks operational commanders with the responsibility of training their units within allocated resources, training to common standards, and following established training management guidance.[5] The new version places emphasis on battalion commanders being responsible for setting training priorities, company grade officers for selecting training standards, and SNCOs and NCOs with being the principal individual skills trainers.[6]

Ground combat individual skills are formally instructed in one of two arenas: operational units or formal schools, also known as training institutions. A more current headquarters-level directive addresses management for the latter.[7] All of these schools execute their training syllabi via a training management tool called a program of instruction (POI). Each POI describes the course in terms of structure, delivery methods, media to be employed, intended learning outcomes, and evaluation procedures.[8]

The prefaces of officer course POIs were more descriptive than those of enlisted courses. They specifically indicated that instructional situations are

presented as realistically and as relevant to actual conditions as possible. This was to be done in order to "closely approximate the situations in which the officer students will perform their future duties and to provide the experience of performing under stress."[9]

POIs are not prepared in a task, condition, and evaluation criteria format. Instead, terminal learning objectives and enabling learning objectives are described for each lesson title. These essentially equate to tasks. The evaluation criteria to be measured are either specifically written into the enabling learning objectives or are referenced in another official publication, such as the MBST Guide, Individual Training Packages, and MCCRES.[10] Only limited guidance is provided detailing the special physical demands, environmental parameters, and situations under which task performance conditions are to be trained and evaluated. Phrases such as "simulated combat conditions," "simulated tactical conditions," "simulated combat environment," and "field environment" are frequently used, but no descriptive details regarding these terms is provided.[11] Not stated, but assumed, is that the lack of specificity is due in part to geographical considerations, fiscal restraints, and a desire to allow maximum flexibility on the part of on-scene trainers.

The draft MCO governing the MBST Program provides the focus, intent, and execution instructions for the

conduct of all Marine Corps combat training. The actual application document for individual and small unit task training is the recently published MCO 1510.35A, Battle Drill Guide and Individual Training Packages. It is the primary reference guide for institutional school trainers as it provides specific performance standards for the conduct of Basic Warrior Training, Marine Combat Training, and Marine Leader Training.[12] It is intended to also serve as a training tool for operational unit leaders in the conduct of the final phase of MBST -- Unit Sustainment Training.

The guide is structured in two parts. The first section contains 30 battle drills for squads and platoons. The second part has a plethora of individual tasks. Each defines the standards to be attained, the situational battle drills under which the task is to be practiced, and the specific performance steps to be followed.

The guidance provided for establishing training conditions primarily describes support equipment, locations, and assistance required. What is also stated under the conditions section of every task is that "conditions are determined by mission requirements."[13] This handbook also describes the "talk through, walk through, run through" training philosophy, challenging the leader to raise the level of realism until the quality, speed, stress, and environment come as close as possible

to actual wartime missions.[14] This, of course, almost assumes the trainer has personal knowledge of exactly what are wartime conditions. Procedures outlined in the guide are intended to provide the necessary preparation for units and their individual members to be evaluated under the Marine Corps Combat Readiness Evaluation System (MCCRES).[15]

There are three aspects which are essential to the effective use of MCCRES as a performance evaluation system. First, Mission Performance Standards (MPS) listed in the respective volumes of MCCRES must accurately reflect the assigned missions of the unit and its members. Second, personnel assigned as evaluators must be qualified. Third, the validity of the evaluation is dependent on the conditions under which it is conducted.[16] A MCCRES can be used as both a formal evaluation tool and an informal assessment of unit and individual proficiency and training effectiveness.

Conditions outlined in the subordinate volumes of the MCCRES directive are much like those of the MBST guide and formal school POIs: they describe equipment needs, locations, and general situational requirements. They do not outline combat-like environmental parameters. This degree of specificity is left to the judgement of the tactical exercise controller who ensures that the evaluation exercise scenario reflects the evaluated unit leader's program goals and objectives.[17]

To this point, the author has reviewed those official documents and publications which presumably define the "train as you fight" fundamental on which Marine Corps individual skills training is based. The next section of this chapter will analyze various articles and studies which relate a key parameter to the establishment of combat-like training conditions -- battlefield stress.

Stress

This section analyzes the impact of stress on realistic training by first describing its importance and potential effects in combat. Then it considers the Marine Corps' official approach to battle stress instruction. Finally, it discusses the contents of several other sources which provide significant insight to the stress-training interrelationships.

Previous U.S. Army and Israeli Defense Force experiences suggest that in high-intensity conflict with conventional weapons, at least one battle stress casualty will occur for every four battle casualties during the initial stages of war. If it is necessary to fight in a nuclear, biological, or chemical environment over a 30-day period, predictions of battle stress casualties range from 1-to-3 to even 1-to-2.[18] Low-intensity conflict tends to produce lesser numbers of battle stress in the short-

term, but significantly higher numbers result the longer troops remain in theater.[19] Most experts state that one of the main factors in reducing the degrading effects of battle stress is training.[20]

In his book, On War, Carl von Clausewitz extols the virtues of realistic training by commenting:

> Peacetime maneuvers are a feeble substitute for the real thing; but even they can give an army an advantage over others whose training is confined to routine, mechanical drill.... It is immensely important that no soldier, whatever his rank, should wait for war to expose him to those aspects of active service that amaze and confuse him when he first comes across them. If he has met them even once before, they will begin to be familiar to him.[21]

Realistic training is also critical to developing countermeasures to battlefield stress. S.L.A. Marshall in Men Against Fire states:

> During training, the soldier, and certainly the officer, can be given enough knowledge about human nature under the stresses of the battlefield that when it comes his time to go forward, he can make tactical use of what he knows in the same way that he applies what he has learned about his equipment.[22]

As noted in chapter 1, there is no shortage of documentary material analyzing the causes, cures, and countermeasures of stress. This includes the subset areas of battlefield stress, fear, and fatigue. Very little, however, of this element of combat is specifically addressed as such in Marine Corps' training management publications.

The new Training Management System (TMS) currently under development and implementation within the Marine Corps, defines and discusses primarily management principles within the realm of the training system. It discusses the systems approach to training in general terms, integrates some old and some new training standards programs, outlines the mission essential task list (METL) and command training guidance concept currently used by the U.S. Army, and challenges all trainers to achieve high quality in individual and collective training. At this point in its development, it concentrates more on the systematic process of training management than it does on refining or redefining current philosophies, policies, or priorities in individual training. No specific mention of battle stress or safety is addressed.[23]

The POIs researched in this study do not specifically addressed stress or safety parameters in a direct manner. Officer basic course POIs contain minimal, formal combat leadership classes[24] and training management instruction,[25] but do not clearly link the two together in specified terminal and enabling learning objectives. Enlisted course POIs are clearly focused on individual skills training. No mention is made of TMS inasmuch as the students will not immediately be assuming leadership positions on graduation. No formal battlefield stress instruction is provided, although it is presumed

that the subject is addressed informally by staff instructors.[26]

What little formal presentation of battlefield stress, fear, and fatigue that does exist may be found in the combat leadership lesson (#84-217) of NAVMC 2767, User's Guide to Marine Corps Leadership, and MCIO P1500.44B Battle Skills Training/Essential Subjects Handbook. MCIO P1500.44B describes only four specific tasks to this subject area, and addresses the training standard conditions for instructing them as "The Marine will be given a lecture on the material." It further describes NAVMC 2767 as the sole source reference.[27]

The NAVMC 2767 lesson is very thorough and outlines answers to many philosophical questions such as "Who is a combat leader? What are the common elements found in a combat environment? What stresses do you expect to experience in combat? What is it that enables Marines to overcome fear? What can we do during peacetime to prepare our Marines to meet these challenges?" and "How do you develop realism without taking excessive risks?"[28] Although it was published prior to FM 26-2 Management of Stress in Army Operations and FM 8-51 (Draft) Combat Stress Control in a Theater of Operations, it closely replicates their efforts at defining the causes and effects of battle stress. It lists key indicators that leaders should recognize in assessing their subordinates'

adjustment to combat stressors. It does not provide much detail in stress countermeasures training.

Nearly every trainer has experienced stressors in the conduct of training. They may have been intentionally induced, but more than likely simply occurred in the regular course of activities. If the trainer is to purposefully induce stress in training, he must fully understand the concept of combat stressors and their effects. So before discussing stress any further, it would be beneficial to outline the two major categories of combat stressors and several types of each as identified in FM 8-51 (Draft):[29]

Mental Stressors	Physical Stressors
- too much or too little info	- heat, cold, wetness
- ambiguity, uncertainty	- noise, blast
- fear of death, injury	- excessive fumes
- grief-producing losses	- sleep debt
- boredom	- dehydration, malnutrition
- rules of engagement	- muscular fatigue
- darkness	- poor hygiene

The NAVMC 2767 leadership lesson outline does suggest that the leader should "Train as you intend to fight. Attempt to accomplish as realistic training as possible."[30] It describes realistic training as that which is stressful, incorporate noise, smoke, danger, confusion, and fatigue. These conditions, of course,

closely parallel the stressors identified above. It goes on to task the leader/trainer to use his imagination and reminds him of his responsibility to prepare his Marines for the shock of combat.[31] It then outlines several ancillary principles which contribute to realistic training:[32]

- train in the basic fundamentals
- emphasize the attack
- develop an aggressive spirit and confidence in individual fighting ability
- cross train individuals
- train under adverse conditions

Several other sources researched provided interesting and informative discussions of stress and its impact on task performance training. While not official sources, they augment, refine, and better define battlefield stress than many doctrinal publications currently in print.

Colonel F. H. Waldrop, a retired U.S. Marine, defines three major stressful situations in his article "Practicing to be Miserable," with which persons in combat must cope in order to successfully accomplish their mission: primitive living conditions, varying extremes of weather and terrain, and the enemy. He goes on to note that most troops will follow the path of least resistance. The toughness to overcome this tendency is not acquired naturally, but must be deliberately

cultivated under contrived circumstances. He concludes by noting that our training must be consciously designed to eliminate the effect of the gap between the "soft American way-of-life" and the need to survive on the modern battlefield.[33]

An active duty Marine major, J. J. McMenamin, develops an excellent discussion of dealing with battle stress in his article "Developing a Continuous Operations Capability." He specifically cites three main factors for study: leadership, training, and developing skills to cope with stress. As a result of his research, he offers several suggestions for stress inoculation.[34]

Training exercises should last between 15-30 days, and involve periods of high activity for more than 18 hours per day. Plans should be changed at unexpected times. Immediately prior to field training exercises, demanding physical activity should be conducted and sleep should be deprived. Logistics problems should be created and simulated equipment malfunctions should be entered into the training scenario. Leaders should be "killed" and juniors unexpectedly put into positions of higher authority. In addition to regular simulated casualties with physical injuries, mental stress casualties should also be incorporated into the problem. He concludes by offering some solutions, or countermeasures, to the problem of combat stress. He proposes that leaders should be trained to recognize the causes and effects of stress,

and that they should train their subordinates in relaxation methods, sleep plans, and unit cohesion techniques.[35]

The practical effect of unit cohesion has long been heralded as a highly effective stress countermeasure. It has been proven that where cohesion is high, stress in combat units will be lower.[36] This seemingly intangible element of combat has been the subject of study for centuries. It probably deserves as much attention now as it did when it was first proclaimed that this moral force is as important to the military commander as is tactical skill and weaponry.

One of the most famed advocates of the effects of elan, esprit de corps, courage, and unit cohesion in battle was an obscure French Army regimental commander, Colonel J.J.J. Ardant du Picq. He postulated that fear in battle was inevitable and not always negative to the cause. But he firmly believed that the soldier was capable of handling only a limited quantity of this most debilitating form of stress. He correctly predicted that with increases in weapons technology, men on the battlefield would be caused to operate farther and farther apart. This, he said, would only serve to build feelings of loneliness and fear. His solution to this dilemma was cohesion. Today more and more studies and articles on the subject of battlefield stress, fear, and fatigue are using

du Picq's book, Battle Studies, as a major source of information and direction.[37]

The Amphibious Warfare School is the Marine Corps' formal, basic career level school for captains. Students are formed into conference groups and required to prepare and present a battle study on a military subject of significance. One of those groups delivered a presentation in 1987-1988 titled, "Fear and Motivation." It provides an excellent analysis of fear and stress in combat. Noise, idleness, helplessness, ignorance, and fatigue are identified as the most common factors which contribute to fear and stress.[38] The study concludes that tough, realistic, challenging training and leadership will assist in the reduction of stress and anxiety. The authors of that study proposed ways to reduce the effect of the five factors cited above.

In the absence of small arms ammunition availability, they proposed the use of demolitions, and artillery and machinegun simulators to replicate the noises of incoming enemy fire. They noted the importance of ensuring that all troops are made aware of operations orders and commander's intent to mitigate the effects of ignorance. Physical and mental fitness were essential to overcoming fatigue and could be developed through resistance training, rigorous combat foot marches, and extended field operations well beyond two to three days in length. "Hip pocket" instruction and troop information

classes during those lengthy field exercises were key to overcoming idleness. Helplessness, they postulated, could be reduced through accurate information of threat weapons and capabilities. Their conclusion, however, was that it is the leader and his ability to motivate, and strong unit cohesion which will ultimately defeat the negative effects of fear and stress.[39]

Major D. B. Flora, U.S. Army, completed a Master of Military Art and Science thesis in 1985 at the U.S. Army Command and General Staff College titled, "Battlefield Stress: Causes, Cures, and Countermeasures." He concluded that pre-combat education about stress was as important as the countermeasures actually undertaken in battle. A study that he reviewed noted that only 7% of soldiers surveyed had a class on battle stress within the past two years, on 12% had ever seen a stress casualty simulation during the same period while 26% said they would not trust a stress casualty returning to their unit.[40] This thesis discusses similar educational concerns in chapters 5 and 6.

The Flora thesis recommends many of the same training cures for fear and stress as noted in previous sources in this chapter. One other significant training program he cited was that of the Soviet Army. He described how it uses large volumes of explosives in close proximity to troops to shake the ground and add emotional tension. This training course continues by having

trainees pass through fog and gas shrouded areas, and a burning fire zone designed to represent the severe strains of war.[41] The Soviets insist on providing this level of realistic training despite significant casualties that may be suffered. They feel this is the price to pay in peace so that stress casualties may be reduced in combat.

Today's Marine Corps trainer probably does not need to be convinced that stress is necessary in training to maximize task performance productivity in combat. But what level of stress in training is most effective? A study conducted by two civilians with doctorates in psychology analyzed this dilemma. They evaluated task proficiency under fire conditions: no stress, constant low stress, constant high stress, random levels of stress, and gradually increasing stress. The highest results, as one would probably expect, were obtained when no stress was induced. Somewhat surprising was the condition producing lowest results - gradually increasing stress. Of the three remaining conditions, constant high stress produced the best results.[42] This does not necessarily imply that this methodological approach is best for the military trainer. It does, however, suggest that constant, tough, realistic training may indeed have merit.

Safety

The leader receives his direction, guidance, and focus on training safety from at least three sources: published regulations, oral guidance from superiors, and personal judgement based on experience. Documentary materials primarily include range and training area standing operating procedures (SOP) and policy letters. The freedom to err by taking prudent risk is a license given by senior leaders and can vary dramatically from senior to senior, and even day to day. Self-imposed safety restraints are likewise unique and, albeit the most powerful guidance mechanism, very difficult to analyze. This thesis focuses on the written word as it is that which is called to the fore whenever a training mishap or fatality is under investigation.

Department of Defense (DoD) instruction on occupational safety tasks the military services to develop and implement safety regulations.[43] It also contains a table for deriving risk assessment codes (RAC), a numeric expression of the risk associated with a hazard that combines the hazard severity with mishap probability.[44] The Department of the Navy (DoN) regulation merely passes the DoD responsibility for publishing safety regulations on to the Marine Corps. It also, however, requires that:

> risk management techniques be applied in the planning of all readiness training to ensure training is realistic, but does not exceed an acceptable level of risk for a noncombat

> situation.... Risk decisions must be at the appropriate level of command based on the level of risk, hazard involved, exposure, and worst case scenario.[45]

The application of the policy regarding RAC assessment and implementation has never been experienced by the author.

The 11-year-old MCO which publishes the Marine Corps ground safety program only notes that "...safety precautions shall be integrated into training...programs and into...tactical publications."[46] It later contains provisions for the assignment of safety managers and their training and puts total responsibility for personnel and equipment safety on the shoulders of the commander. It blames accidents for reduced efficiency, claims against the government, and endangering public relations.[47] Although the order is meant to cover both military and nonmilitary situations, its emphasis is clearly on the more structured and rigorously enforced safety parameters of the civilian employee workplace. Regarding the correction of hazardous conditions, it tasks the military commander with establishing programs per established priorities and procedures. RACs are briefly mentioned but no detail is provided vis-a-vis the requirements of the DoD and DoN directives noted above.[48]

The two major installation range control SOPs researched for this thesis describe and define training safety much like all other United States military bases probably do. They are very specific in terms of range

safety officer, maneuver limitation, and minimum safe distance for live firing requirements. They also place specific responsibilities on commanders and essentially infer that accidents are not likely to occur in units that are well skilled in the basics, have good SOPs, follow range/maneuver area/airspace regulations, and practice sound leadership and supervision.[49] These tenets are essentially repeated in the How to Conduct Training Fleet Marine Force Reference Publication.[50]

Command guidance on training safety is given to subordinates at all levels of leadership. This focus and emphasis, of course, begins at the top. The Commandant of the Marine Corps issued training safety related documents at least three times between August 1990 and February 1991. While not formal directives, they contain the force of official publications and are intended to be disseminated to and complied with down to the lowest echelon of trainer/leader. Statements such as "prevention (of mishaps) must remain the top priority,"[51] "the leading cause of mishaps had been simple disregard of established procedures or safe practices,"[52] and "the attitude of safety first will reduce all categories of mishaps for FY91"[53] certainly have an impact on the trainer as he carefully assesses specifically how he intends to make his training realistic.

Ground training fatalities between 1985-1990 do not reveal any particular trend: 1, 12, 1, 16, 10, 10.[54]

But they could certainly be classified as low considering the hundreds of thousands of training man-days they encompass. Recruit training deaths between 1972-1987 also show remarkably low numbers: 31 fatalities during the conduct of training more than 740,000 recruits, a percentage of slightly more than 0.004%.[55] It is difficult, if not impossible, to emphatically state that these figures are indicative of excessively safe or unrealistic training. As stated early in this thesis, these parameters of training (safety and realism) are subjective and relative. It is important to analyze them in greater detail before specific conclusions can be drawn. This study does attempt to do so, but does nonetheless distill some conclusions considering their potential importance senior leaders and policymakers.

The military services are periodically called on to defend their training versus safety policies and procedures. This last occurred in 1988 before the House of Representatives Subcommittee on Military Personnel and Compensation. The Director of MAGTEC spoke for the Marine Corps and defended its training safety record. He noted that combat training deaths were inevitable; also, it would always be the judgement of on-scene commanders/ supervisors to determine how much realism to impart in training. He also verbally promulgated training safety policy by testifying that if the trainer was to err, it was to be on the side of safety and not realism. Finally,

he cautioned against imposing unnecessary restrictions as an overreaction to training accidents.[56]

Despite the Marine Corps' apparently excellent training safety record it, along with the other three United States military services (whose training fatalities records over the past five years are similar to the Marine Corps'), is again under scrutiny by another federal governmental agency. The General Accounting Office recently notified the DoD in early 1991 it would be conducting a training safety audit as a result of constituent complaints to a U.S. senator. They are going to determine the frequency of formal and operational training deaths, assess the extent to which deaths are investigated, and determine whether training safety can be improved.[57]

Chapter 7 of this thesis makes a strong recommendation to follow-up the results of this investigation. It can potentially have a significant impact on safety policies and procedures and, more importantly, affect future efforts by trainers to simulate stress in training and improve training realism. Lessons learned from Operation Desert Storm will undoubtedly also weigh heavily in the future development of Marine Corps ground combat, individual skills training.

ENDNOTES

[1] U.S. Marine Corps, Marine Corps Order 1553.1A, The Systems Approach to Training (Washington, D.C.: Headquarters, U.S. Marine Corps, 10 January 1984), 2; and Marine Corps Order 1500.42B (Draft), Management for Marine Corps Formal Schools and Training Centers, (Washington, D.C.: Headquarters, U.S. Marine Corps), 1.

[2] USMC, MCO 1553.1A, 5; and U.S. Marine Corps, Marine Corps Order 1553.1B (Draft), The Marine Corps Training and Education System (Washington, D.C.: Headquarters, U.S. Marine Corps), 3-5.

[3] U.S. Marine Corps, Marine Corps Order 1510.35A, Battle Drill Guide and Individual Training Packages (Washington, D.C.: Marine Corps Institute, 1989), 12.

[4] U.S. Marine Corps, Marine Corps Order 1500.40A (Draft), Marine Corps Unit Training Management System (TMS) (Washington, D.C.: Headquarters, U.S. Marine Corps), 1.

[5] U.S. Marine Corps, Marine Corps Order 1500.40, Marine Corps Training Philosophy, Definitions, Priorities, and Training Requirements (Washington, D.C.: Headquarters, U.S. Marine Corps, 13 November 1980), 2.

[6] USMC, MCO 1500.40A (Draft), 3-4.

[7] U.S. Marine Corps, Marine Corps Order 1500.42A, Management for Marine Corps Training Institutions (Washington, D.C.: Headquarters, U.S. Marine Corps, 16 September 1985), 1.

[8] Ibid., 2; and USMC, MCO 1500.42B (Draft), Encl (4).

[9] "Warrant Officer Basic Course Program of Instruction" (Quantico, VA: Marine Corps Combat Development Command, March 1989), I-3.

[10] USMC, MCO 1500.40A (Draft), 4.

[11] "Marine Combat Training Program of Instruction" (Camp Lejeune, NC: U.S. Marine Corps School of Infantry, 20 April 1990), IV-D-1; "Infantry Officer Course Program of Instruction" (Quantico, VA: Marine Corps Combat Development Command, March 1987), IV-A-52; "Basic Officer Course Program of Instruction" (Quantico, VA: Marine Corps Combat Development Command, November 1988), IV-O-13; "Basic Warrior Training Program of Instruction"

(Parris Island, SC: U.S. Marine Corps Recruit Depot, 13 November 1988), IV-G-1; and "Basic Rifleman (0311 Course) Program of Instruction" (Camp Lejeune, NC and Camp Pendleton, CA: U.S. Marine Corps Schools of Infantry, 8 May 1990), IV-P-2.

[12] U.S. Marine Corps, Marine Corps Order 1500."X" (Draft), Marine Battle Skills Training (MBST) Program, (Washington, D.C.: Headquarters, U.S. Marine Corps, undated), 2.

[13] USMC, MCO 1510.35A, 2 and 131.

[14] Ibid., 12.

[15] Ibid., i.

[16] U.S. Marine Corps, Marine Corps Order 3501.1B, Marine Corps Combat Readiness and Evaluation System (MCCRES) (Washington, D.C.: Headquarters, U.S. Marine Corps, 27 December 1988), Encl (3), 1.

[17] Ibid., 3.

[18] S.L.A. Marshall, Men Against Fire (Gloucester, MA: Peter Smith, 1978) quoted by Major Joseph J. McMenamin in "Developing a Continuous Operation Capability," Marine Corps Gazette, No. 75, February 1991, 65.

[19] U.S. Army, Field Manual 8-51 (Draft), Combat Stress Control in a Theater of Operations (Tactics, Techniques, and Procedures) (Fort Sam Houston, TX: Academy of Health Sciences, 1990), 1-5.

[20] McMenamin, 66.

[21] Carl von Clausewitz, On War, trans. Michael Howard and Peter Paret (Princeton, NJ: Princeton University Press, 1876), 122.

[22] McMenamin, 68-69.

[23] "Senior Officer Training Management Seminar Briefing Outline and Charts (Draft)" (Quantico, VA: Marine Air-Ground Training and Education Center Standards Division, October 1990), passim.

[24] "Basic Officer Course Program of Instruction," IV-G-47 to IV-G-49; and "Warrant Officer Basic Course Program of Instruction," IV-G-27 to IV-G-29.

[25] "Basic Officer Course Program of Instruction," IV-G-55 to IV-G-57; "Infantry Officer Course Program of

Instruction," IV-A-20 to IV-A-24; and "Warrant Officer Basic Course Program of Instruction," IV-G-31.

[26] "Basic Rifleman (0311 Course) Program of Instruction," I-2; and "Marine Combat Training Program of Instruction," I-2.

[27] U.S. Marine Corps, Marine Corps Institute Order P1500.44B, Marine Battle Skills Training/Essential Subjects (Arlington, VA: Marine Corps Institute, 6 September 1989), 11-1 to 11-7.

[28] U.S. Marine Corps, NAVMC 2767, Lesson 84/217, "Combat Leadership," User's Guide to Marine Corps Leadership (Washington, D.C.: Marine Corps Headquarters, 12 March 1984), 2, 5, 6, 40 and 42.

[29] USA, FM 8-51 (Draft), 1-13.

[30] USMC, NAVMC 2767, 37.

[31] Ibid., 42.

[32] Ibid., 42.

[33] Colonel F. H. Waldrop, "Practicing to be Miserable," Marine Corps Gazette, No. 72, May 1988, 30.

[34] McMenamin, 66.

[35] Ibid., 69-71.

[36] Edna J. Hunter, Ph.D. and Colonel Howard T. Prince, II, "Stress and the Combat Leader," Marine Corps Gazette, No. 72, August 1988, 63.

[37] Major Mitchell, Zias, "Ardant du Picq: Unsung Giant of Military Theory," Term I Syllabus/Book of Readings, P671-The Evolution of Modern Warfare, Ft. Leavenworth, KS, U.S. Army Command and General Staff College, Combat Studies Institute, July 1990, 200-206.

[38] "Fear and Motivation: An AWS Battle Study," Marine Corps Gazette, No. 72, August 1988, 66.

[39] Ibid., 68-70.

[40] Dale B. Flora, "Battlefield Stress: Causes, Cures, and Countermeasures" (Master of Military Art and Science Thesis, U.S. Army Command and General Staff College, Ft. Leavenworth, KS, 1985), 117.

[41] Ibid., 121.

[42] Giora Keinan, Ph.D. and Nehemia Friedland, Ph.D., "Dilemmas Concerning the Training of Individuals for Task Performance Under Stress," Journal of Human Stress, No. 10 (Winter 1984), 188.

[43] Department of Defense, Department of Defense Instruction 6055.1, DoD Occupational Safety and Health Program (Washington, D.C.: Assistant Secretary of Defense (MI&L), 2.

[44] Ibid., 5-4.

[45] Department of the Navy, Secretary of the Navy Instruction 5100.10G, Department of the Navy Policy for Safety, Mishap Prevention and Occupational Health Programs (Washington, D.C.: Office of the Secretary of the Navy), 4 and 11.

[46] U.S. Marine Corps, Marine Corps Order 5100.8E, Marine Corps Ground Occupational Safety and Health Program (Washington, D.C.: Headquarters, U.S. Marine Corps, 1986), 2.

[47] Ibid., Encl (1), 1.

[48] Ibid., 12.

[49] U.S. Marine Corps, Marine Corps Base Camp Lejeune Order P11102.1K, Standing Operating Procedures for Range Control Operations (Range Control SOP) (Camp Lejeune, NC: Headquarters, Marine Corps Base, Camp Lejeune, NC, 11 October 1985), 4-3; and U.S. Marine Corps, Marine Corps Air Ground Combat Order P3500.4A, Standing Operating Procedures for Training Areas, Ranges, and Airspace (Twentynine Palms, CA: Headquarters, Marine Corps Air Ground Combat Center, 8 October 1987), 1-3.

[50] U.S. Marine Corps, Fleet Marine Force Reference Publication O-1A, How to Conduct Training (Quantico, VA: Marine Corps Combat Development Command, 1989), 1-2.

[51] Commandant of the Marine Corps, ALMAR 172/90 (CMC msg), "Marine Corps Ground Mishaps," 051957Z, August 1990, 1.

[52] Commandant of the Marine Corps, White Letter 6-90, "Negligent Discharge of Firearms," Washington, D.C., Headquarters, U.S. Marine Corps, 13 November 1990, 1.

[53] Commandant of the Marine Corps, CMC msg 160315Z, "Mishap Summaries and Trends 1-91," November 1990, 1.

[54] U.S. Congress, House of Representatives, "Military Training and Safety," Hearing before the Military Personnel and Compensation Subcommittee of the Committee on Armed Services (Washington, D.C.: U.S. Government Printing Office, July 27, 1988), 75-76; and "On Duty, Ground Training Mishaps and Totalitier Report (1988-1990)," Tabular presentation of data provided by the Marine Air-Ground Training and Education Center, Marine Corps Combat Development Command, Quantico, VA, circa 1 February 1991, 1.

[55] "Report of Marine Corps Recruit Training Deaths (1972-1987)," Tabular presentation of data provided by the Marine Air-Ground Training and Education Center, Marine Corps Combat Development Command, Quantico, VA, circa 1 February 1991, 1.

[56] U.S. Congress, House of Representatives, 55-56 and 59-60.

[57] Department of Defense, Inspector General Memorandum for the Assistant Secretary of Defense (Force Management and Personel), Subject: General Accounting Officer (GAO) Letter Dated January 7, 1991, "Training Safety Across the Four Services," (GAO Code 391121), 15 January 1991, 1.

CHAPTER 5

ANALYSIS OF SURVEY

Chapter 3 discusses the use of a survey in the methodology of this thesis. The survey instrument consisted of two parts. The first part was designed to collect demographic data. The second part required the survey participant to make several training quality assessments. As stated in that chapter and in the cover letter to each survey (see Appendix B for a blank copy of the survey instrument), the intent was to solicit the opinions of Marines who had used the skills they had learned in training, through participation in actual combat, in a DoD contingency operation, or anywhere else in the world where the threat of enemy contact would require crisis decision making or the use of force. For brevity, the single term "crisis" will be used throughout the remainder of this thesis to include all categories of what is commonly called "real world" activity.

The demographic data established the following: officer or enlisted status (the two major groups analyzed), MOS (identifies combat, combat support, and combat service support status), age and number of years on active duty (potentially some indication of maturity and professional military experience), formal schooling (indicates technical level of expertise), actual location and duration of crisis, and the participant's assessment

of his unit's overall training readiness (possibly having an impact on his evaluation of the quality of individual training, stress, and safety described in part II of the survey).

The remainder of this chapter will describe the results of the survey by providing an analytical summary of the demographic data of the participants who responded. Then it identifies respondent opinions on individual training quality, stress, and safety issues by simply providing the mean (average) to each question. Chapter 7 recognizes that tnis survey was not mathematically complex, and that follow-on research can probably go far in implementing a more statistically accurate survey. In either case, the elements in question will always remain very subjective and open to liberal interpretation This was, in fact, the primary limitation to this thesis identified in chapter 1. The 1-to-10 value scale used in most of the questions is not the perfect marker of quality assessment. One Marine's "8" may be another's "4." Nonetheless, it was assumed that some overall degree of correlation existed between the opinions of the participants so as to minimize any scatter diagram effect on the data.

As noted in chapter 3, more than 500 surveys were mailed out in an attempt to saturate locations where qualified participants may have been located. As of the cutoff date established by the author, 41 Marines had

responded -- 11 were officers and 30 were enlisted. Respondents were from a wide variety of MOSs representing combat, combat support, and combat service support functions and were in an equally diverse number of billets (jobs) in the crises they were involved in. Table 5-1 below provides the breakdown of participants by rank and table 5-2 lists the MOSs of the respondents.

Table 5-1. Military Rank of Survey Participants

Rank	At Time of Survey	At Time of Crisis
Officer		
1st Lt	0	2
Capt	3	7
Maj	6	1
LtCol	2	1
(Total)	(11)	(11)
Enlisted		
PFC	0	1
LCpl	0	4
Cpl	2	5
Sgt	15	12
SSgt	10	6
GySgt	2	2
MSgt	1	0
(Total)	(30)	(30)

The following list provides a sample of the billets occupied by the survey participants during the time they were in their respective crises:

Officers -- rifle company commander, counterfire officer, anti-armor officer, rifle platoon leader, Marine

Expeditionary Brigade operations officer, contingency Marine Air-Ground Task Force ground combat element commander, Marine Expeditionary Unit assistant operations officer.

Table 5-2. MOSs of Survey Participants

MOS (# respondents)	MOS Description
Officer	
0302 (7)	infantry officer
0802 (2)	field artillery officer
1802 (1)	tank officer
7562 (1)	pilot, CH-46 qualified
Enlisted	
0151 (1)	administrative clerk
0313 (2)	light armored vehicle crewmen
0331 (2)	machinegunner
0369 (6)	infantry unit leader (staff NCO)
0431 (1)	logistics/embarkation specialist
0481 (2)	landing support specialist
0844 (1)	field artillery fire control man
0861 (1)	fire support man
2531 (3)	field radio operator
3043 (1)	supply admin/operations clerk
3051 (1)	warehouse clerk
3533 (2)	motor vehicle operator
3534 (1)	heavy equipment operator
3537 (2)	motor transport operations chief
5811 (1)	military policeman
6053 (1)	aircraft hydraulic mechanic
6072 (1)	aircraft maintenance mechanic
6315 (1)	aircraft comm/weapons technician

Enlisted -- light armored infantry platoon leader, embarkation chief, avionics technician, machinegun squad leader, operations NCO, radio operator, infantry platoon sergeant, rifle platoon guide, heavy vehicle operator,

motor transport chief, military police squad leader, embassy guard, fire support coordination center chief, artillery liaison NCO.

Table 5-3 provides the locations of the crises and the average number of days spent in that location.

Table 5-3. Crisis Location/Operation and Duration in Crisis

Crisis Location/Operation	Average # Days in Crisis Area
( ) - # Officers	
Beirut peacekeeping opns 1982-84 (6)	149
Opn Urgent Fury - Grenada 1983 (2)	70
Opn Praying Mantis - Persian Gulf 1988 (1)	60
Panama stability opns 1988-90 (1)	150
Opn Just Cause - Panama 1990 (1)	40
( ) - # Enlisted	
Beirut peacekeeping opns 1982-84 (11)	183
Opn Urgent Fury - Grenada 1983 (2)	30
Opn Praying Mantis - Persian Gulf 1988 (1)	60
Panama stability opns 1988-90 (1)	100
Opn Just Cause - Panama 1990 (2)	18
Opn Ahaus Tara - Honduras 1988 (1)	180
Opn Desert Shield - Saudi Arabia 1990-91 (12)	91

The average age of the officer respondent at the time they completed the survey was 37.5 years; it was 32.2 years at the time of the crisis. For enlisted participants the averages were 28.3 years at the time of survey and 24.4 years at the time of crisis.

Officers averaged 14.3 years of active duty at survey time, and 8.5 years at crisis time. Enlisted respondents had been in service 9.5 years when they completed the survey but only 6.3 years when they went into crisis.

The assessment of both officers and enlisted was nearly equal regarding the overall level of unit training received prior to crisis. Officers assigned a value averaging 6.1 while the enlisted were slightly higher at 6.4. (1 was intended to indicate minimal unit training received and 10 represented an optimal amount of training.)

The first two questions in part II of the survey were designed to elicit a comparison. The participants were asked their perception of the quality of ground combat, individual skills training received before they were involved in crisis, with their retrospective evaluation of that training once they had actually put those individual skills into practice in crisis. Unfortunately, many respondents misunderstood the second half of this comparative analysis. They provided their evaluation of the actual training they received on return from the crisis instead of reevaluating the effectiveness of their pre-crisis training. Many had to be personally telephoned by the author in order to obtain a proper response.

Because of the potential differences of qualitative opinion in the 1-to-10 value scale, a different approach was taken assessing these first two questions. Rather than identifying the mean (average) in each question, it was decided to look at the differences in the two values. This describes, more importantly, the Marine's assessment of his training made in hindsight. A lower "after" crisis evaluation would indicate he thought his pre-crisis training was not as good as it should have been. No difference between the two values essentially says the quality of training was adequate. A higher value would actually imply the Marine thought he had been overtrained before the crisis.

None of the respondents replied in the manner described by the latter situation. Four officers and four enlisted assigned equal before and after values. Of those who thought their training was somewhat inadequate, the mean difference in the opinion of the officers was 1.3 while the enlisted perceived a greater disparity in the quality of their training noting an average difference of 2.3.

Consider these brief quotes taken from the comments section of the first two questions:

-- A major who had been in Beirut said, "I feel nothing prepared me for the volume of information and quick decisions I had to make...I found that in a real situation, you have tons of useless information that has

to be sifted through to get to the real meat. Training needs to simulate those conditions."

-- A staff sergeant who participated in Operation Desert Shield said, "...in training, ammo weight is almost never compensated for. With ammo, chow, water, and additional clothes a Marine may be carrying up to 130-150 additional pounds. Most may weigh little more than their pack does. We either need to train with these weights or reduce the load."

-- Another major serving in Beirut noted, "I was extremely pleased with the training cycle and, as a result, very confident of my company."

-- A staff sergeant who was involved in Operation Praying Mantis claimed, "I have often been involved in many high level field exercises where the troops were nothing more than chess pieces. We received little productive training."

-- A sergeant in field artillery who went to the Persian Gulf area said, "We received a lot of training once we hit the deck in Saudi Arabia. Only then was training taken really seriously."

-- An artillery captain explained, "Upon entering Lebanon I had zero doubt of my ability to perform. Our training was very good and validated in Beirut."

-- A rifle company commander who fought in Operation Just Cause said, "It is impossible to train in peacetime with the same level of intensity that you do in

an area where the threat is readily apparent. It was fortunate we had been in theater for a couple of months before the operation."

-- A sergeant who operated in Honduras wrote at length noting, "I feel the quality of training goes down after boot camp....Training is never taken seriously enough until you actually deploy to a combat zone....Most training is done by the book, step-by-step. But that's not the way it happens."

-- A lieutenant colonel who commanded during Operation Praying Mantis claimed, "Units afloat have to plan well in advance in order to conduct quality training while on ship....Also, as simple as it sounds, reaction to live fire is perhaps the most important skill to teach."

-- An infantry captain who commanded in Panama exclaimed, "The small unit leader must be given the latitude to train people as they see fit without being oversupervised by 'zero defects' superiors."

-- A staff sergeant from Operation Desert Shield said, "NBC defense was not stressed enough before we deployed....The attitude always seemed to be 'it won't happen to us.'...This past summer during training week a ceremony to dedicate a new building had precedence over our training!"

-- An embarkation NCO who just returned from Operation Desert Shield proudly noted, "I believe the

training I received would have made a world of difference. We were ready!"

The next question asked for an evaluation of how much training the respondents had received on battlefield stress throughout their career. A value of 1 represented little to no training and 10 was indicative of extensive training. Officers assigned a mean value of only 2.7 while the enlisted were somewhat higher at 4.2. In conjunction with this assessment, participants were queried about the percentage of time they actually spent in crises dealing with battlefield stress themselves and also as leaders. Once again, the officers provided lower figures noting they had spent slightly more than 10% of their time dealing with stress on a personal basis and just less than 19% handling the matter as a leader. The enlisted approximated higher values of 33% and 41%, respectively.

Consider these comments taken from the stress section of the survey:

-- "My clearest memory of battlefield stress is the lethargic attitude that lack of sleep brought on," said one major. He continued, "...every time I laid down, a round would go off and we'd go back to full alert. After a couple of days of this, the 'don't give a damn factor' got real high."

-- An anti-armor platoon leader who was in Beirut said, "I handled stress by keeping busy running from fighting hole to fighting hole....It was important to keep

the troops informed and stay busy too." He also commented on an Operation Desert Shield training handbook he'd just received. "Only one page of the 100 or so pages was dedicated to battle stress and fatigue."

-- A major who participated in Operation Urgent Fury also commented that, "...keeping Marines busy was key to lowering stress levels."

-- A lieutenant colonel said, "It is not just cliche to say 'train as you intend to fight,'....This does lower stress levels....You must force leaders to sleep and always demand high levels of physical fitness."

-- A staff sergeant explained, "Fear can't be taught...Confidence in training will reduce stress."

-- Another staff sergeant who was in Lebanon implored, "We need to teach this!"

-- An administrative clerk who was in Beirut observed, "...after working non-stop 24 hour days for two weeks, we started losing people to stress injuries....Out of 12 guards, we lost 7."

-- A master sergeant who served in the Persian Gulf said, "We do not put enough stress and fatigue in our training....Military members should stop being pampered and be forced to fear the unknown and train under stress."

The final question in part II asked for an overall assessment of safety regulations, policies, and procedures regarding the amount of restrictions they place on training effectiveness. Excessive restrictions were to be

represented by a value of 1, while 10 indicated they were not restrictive enough. The mean value assigned by both officers and enlisted was 4, that is, slightly on the restrictive side of average.

Thoughts offered from the respondents on this question include:

-- A senior field grade officer observed, "In peacetime, the leader must have the flexibility to incrementally reduce safety regulations which are in place because of inexperience, and move the unit toward what is expected to occur in combat."

-- Two young NCO's provided insightful comments noting, "Safety is necessary, but remember that war is not safe," and "Too many individuals use safety as an excuse why their training was not effective."

-- A rifle company commander who served in Beirut said, "Regulations must allow close overhead fire of heavy weapons....We must throw more live grenades and not fear the regulations that seem to impose too many artificialities."

-- A sergeant who led a machinegun squad in Operation Desert Shield questioned why "safety regulations were apparently greatly relaxed in the Gulf to make training realistic.... We should always train that way."

-- A junior field grade officer profoundly claimed, "I guess a safety value of 5 in this survey is predictable

for a major. I bet you get 1's from lieutenants and 10's from colonels and generals."

-- A major noted, "My impression is that people place more restrictions on themselves than the regulations do."

-- "Safety is a 'necessary evil' that must be thoroughly considered. In the past, when attempts to lessen restrictions were tried, accidents have always resulted." This major then concluded, "I believe the current safety requirements are adequate."

-- Another major observed, "...for the most part training restrictions are based on common sense. What limits our training is our imagination and our ability to work our training up to the limit of existing regulations. Regs are the limit, but can and should be pressed to the edge."

-- A staff sergeant firmly proclaimed, "The Marine Corps places too much emphasis on safety....If safety is continually rammed down our throats, then I believe we are instilling hesitation in our small unit leaders who must make split second decisions under stress."

-- "Let's keep an eye on safety," noted one sergeant, "but combat effectiveness must be the top priority."

-- Perhaps the most profound statement came from an infantry staff sergeant who simply said, "We train for safety, instead of training safely."

The final comments in this chapter come from a senior Marine Corps colonel who sent a letter to the author with his views on the subject of this thesis. Although he did not provide input in the format of the survey which was used, his observations as a combat veteran who was awarded the Navy Cross, Silver Star, and two Bronze Stars in Vietnam were nonetheless invaluable, and are based on more than 25 years of infantry experience. Regarding realistic training he said:

> I went through extremely realistic training during my recon battalion days, at Ranger School, and during the Royal Marine Commando Course. Training was brutal and unforgiving, i.e., injury producing, bloody, and overwhelmingly realistic. Looking back on it today...I am shocked at some of the things we did back then in 'training.' I wish it were still the case but I'm not sure we can return to those days. There's a mental attitude today that nothing is worth getting hurt for in peacetime. It starts at boot camp which has deteriorated to an almost gross level of ineffectiveness....Our recruits are saying, 'we thought it was going to be harder, we wish it was harder, it should be harder!'....Royal Marine Commando Training was realistic to the point of shocking -- and Ranger School as well. Injuries there were: expected, accepted, and in a perverse sort of way, even encouraged....An injury in hand-to-hand training was manifest proof that you were doing your best to hurt your opponent, which was, after all, the goal.[1]

ENDNOTES

[1] Col John W. Ripley, USMC, Commanding Officer, Naval Reserve Officer Training Corps Unit, Virginia Military Institute, Lexington, VA. Personal letter to the author dated 22 February 1991, 1-2.

CHAPTER 6

ANALYSIS OF INTERNATIONAL OFFICER INTERVIEWS

Chapter 3 discusses the use of resident international officers in the U.S. Army Command and General Staff College class of 1991 as a source of global relative perspective on the thesis subject. All 95 officers were solicited for voluntary participation. The only requirement to qualify on their part was prior participation in either combat or some other real world contingency that caused them to put into practice the skills they had learned in training. Six officers volunteered and were well qualified.

Demographic data similar to that which was collected from the survey participants in this study was obtained. This chapter begins with a brief biographical sketch on each officer based on that data. Each officer was asked eight questions which focused on their perceptions of realistic training, battlefield stress, and training safety. This chapter then identifies each question individually and summarizes the response of each officer before moving on to the next question. The six officers were from Israel, Jordan, Indonesia, France, India, and the United Kingdom.

The Israeli officer was an armor lieutenant colonel in the Israeli Defense Force. He currently has 16 years of service and will probably be an armor brigade commander

on return to his country. As a major with seven years of service, he conducted anti-terrorism operations in 1982 in Lebanon as an armor battalion S-3.

The Jordanian officer was also an armor lieutenant colonel but had 20 years active service and will be either a tank battalion commander or General Command College instructor on his return to Jordan. As a second lieutenant with slightly less than four years of service, he commanded a tank platoon in the Golan Heights against the Israeli Army in the 1973 War.

The Indonesian officer was an infantry lieutenant colonel with more than 20 years of commissioned service and will be either a brigade commander or Command General Staff instructor in Indonesia after graduating from this course. As a lieutenant, major, and lieutenant colonel in his army, he participated in counterinsurgency operations in Irianjaya (1974), Kalimantan Island (1983-85), and Timor (1985), respectively.

The French officer was in the cavalry branch of the French Marine Corps. He currently has 15 years of service and will likely be a War College instructor or regimental S-3 on return to France. As a lieutenant and captain, he participated in mobile patrolling and screening operations on three separate occasions in Chad against Libyan-supported Chadian rebels. While still a captain, he also served in 1984 as a member of the multinational peacekeeping force in Beirut.

The Indian officer was an infantry lieutenant colonel with 21 years of service in the Indian Army. He hopes to be assigned as an infantry battalion commander on his return to India. As a young lieutenant and captain, he participated in ground offensive operations in the 1971 Indo-Pakistan War while serving as a battalion intelligence officer and later as a company commander. Nearly 18 years later he was involved in counterinsurgency operations in Sri Lanka as a lieutenant colonel commanding a battalion-sized task force.

The British officer has served for more than 22 years in the infantry branch of the United Kingdom Army. A major now, he will likely be assigned to command an infantry battalion on his return to England. On five separate occasions throughout his career, and at all ranks from second lieutenant to major, he has served in Northern Ireland conducting low intensity, counterterrorism operations.

The first question asked of all officers was to describe the philosophy of training within their military, and ways training was made to be realistic and to approximate the rigors of the crises they had been involved in.

The Israeli officer said there were many economical constraints to training realistically. If he were limited in actual resources to simulate battle conditions, he would opt to train under basic rather than highly

stressful conditions. Also, he redistributes training assets internally to less proficient units so that all units are equal qualitatively. This was most important in his mind. Without having to get governmental approval, he sends his medics and surgeons to work in civilian emergency rooms and trauma clinics to get "real world" experience. Finally, regardless of their MOS, his young soldiers are frequently rotated into local areas where Jewish-Palestinian conflicts are common. This forces them to react and perform under very stressful conditions.

The Jordanian too spoke of financial limitations to the support of field training efforts by his army. He said that most field exercises are intentionally not scripted but instead maximized the use of free-play scenarios. Most training is conducted over many consecutive days, in high mission oriented protective posture (MOPP) levels, and with minimal amounts of sleep. Also, smoke generators and buried explosives (later detonated near troops) are used to further simulate battlefield conditions. In garrison, movies and photographs of the carnage of battle are shown to young soldiers and officers. Finally, he noted that the army hierarchy and government are not only sensitive to personnel losses in training accidents, but also extremely critical of equipment casualties.

The Indonesian officer commented that the military oath taken by all soldiers is the underlying theme behind

everything they do. They are all sworn to preserve their country in the name of God and believe that He provides them direction, purpose, and focus. Their individual training is mentally and physically demanding. Inasmuch as large caliber ammunition is in limited supply, small arms field firing is frequently conducted to simulate the dangers and stresses of combat. With limited amounts of rolling stock available, his units conduct frequent, lengthy foot marches in the field. Sleep, food, and water are also deprived from the soldiers on many occasions during extended field operations to add realism to their training.

The Frenchman described lengthy (normally two-year) deployments all Marines are sent on to any one of several foreign countries. Most are in remote parts of Africa or the Indian Ocean. This is done to allow access to better training ranges and facilities than are available in France, and to minimize the availability of the conveniences of home. They thrive on bad weather conditions for training and also spend a great deal of effort building unit cohesion and esprit in an effort to reduce the stresses of the battlefield.

In India, combat units undergo a rigorous three to seven day field firing exercise once each year called a battle inoculation test which is designed to replicate the conditions and stresses of the modern battlefield. Large amounts (at least large in terms of a relatively poor

country) of tank, artillery, anti-tank, and small arms ammunition, and smoke is simultaneously used in conjunction with troop movement to replicate the complexities and realities of the battlefield. Finally, thirty percent of the army gets to participate in some form of adventure training each year. From mountaineering in the Himalayas to white water rafting, trainees are exposed to conditions fifty percent more dangerous than in their normal training. These courses of instruction are strongly encouraged and supported because of the degree of confidence they instill.

The British officer classified training in two major categories: routine and pre-deployment. Routine training tends to be very resource constrained and, as a result, not always very realistic. On the other hand, units preparing to move into Northern Ireland are the subject of rigorous training schedules laden with large quantities of small arms marksmanship, physical fitness, and patrolling. He noted that while everyone wishes the Northern Ireland problem would go away, its very existence lends a certain sense of urgency and focus to all army units in the conduct of their training. The very notion of being deployed there on short notice causes both leaders and soldiers to maintain a sharp edge at all times.

The next two questions were identical to the first two questions of part II of the survey used in this

thesis. They were designed to elicit the perception the officer had of the degree of realism in his individual skills training on two occasions. The first occasion was an assessment of the quality of that training prior to being in a real crisis situation. This was then compared to his retrospective evaluation after training had been put into actual practice. The same 1-to-10 quality value scale was used, 1 representing very unrealistic training and 10 indicating the most realistic training possible. Just as the analysis was conducted in chapter 5, the difference in the two values was considered as opposed to attempting to calibrate individual before and after values of officers from six countries.

Five of the six officers indicated higher after crisis values, meaning they thought their training was not as realistic as it should have been. The mean difference in values in those five cases was 2.8. This compares with survey values of 1.3 for officers and 2.3 for enlisted. The French officer was insistent that his opinion was just the opposite. He firmly believed he had been overtrained for the task at hand. His value difference was 2.0.

The fourth question inquired whether they felt their society or political establishment inhibited their military's ability to train realistically.

The Jewish officer said his society was obviously very supportive of the military in almost anything it did. More than ninety percent are now in or have served

in the army because of the daft. He said politicians do periodically interfere with military operations but never to the extent to constitute an encumbrance. The Arab officer's reply was very similar. He cited the necessity for military efficiency and readiness as paramount to any chance for peace and survival in the region.

In Indonesia there is little interference from society or politicians, especially with the low threat to armed conflict that currently exists. The Indonesian noted, however, that great concern was always shown for equipment losses, especially given the austere resources available to replace them. The Indian officer made parallel comments, providing several examples where boards of inquiry were conducted and officers court-martialed for training equipment damages or losses. Curiously enough, he noted that in a country of 800 million people, it was presumed far easier to replace five soldiers than five tanks.

The British and French officers said they did not sense any particular limitations given the status quo. But if abnormal numbers of accidents or materiel losses were perceived by the public, then they could foresee greater scrutiny of their every action.

The next two questions were focused on battlefield stress. They were also virtually identical to the questions asked in the thesis survey. It was desired to know what percentage of time was dedicated in a crisis

situation to personally dealing with stress, and what percentage was spent with stress as a leader issue. Then all were asked how their military, if at all, formally instructed battlefield stress, its causes and countermeasures.

The Israeli assigned values of 30% and 70%, respectively. He said his army provided little formal instruction but did invite seasoned combat veterans to lecture young soldiers on their battlefield experiences. The Jordanian officer gave values of 40% and 50%, respectively. He commented that his army had done little in this regard prior to 1980, but now provides some classroom instruction. More, he said, was still needed.

The Indonesian said 60% and 80%, respectively, were not by any means low values. He was disappointed at the complete lack of formal training on battle stress, fear, and fatigue and speculated that his military assumed this matter would be learned by osmosis. The Indian officer also assigned high values, 65% for both categories. He too said that little of this sort of training was ever scheduled and that what was provided was done in leadership seminars.

The French and British officers provided somewhat lower percentages. The Frenchman supposed values of 10% and 25% and the Englishman 20% and 30%, respectively. The latter said his army did virtually nothing formal in this

regard while the former talked of the extensive use of moulage kits to simulate battle casualties.

The average percentages for the international officers was, therefore, 37% and 53%, respectively. In comparison, the survey yielded mean values of 10% and 19% for officer respondents, and 33% and 41% for enlisted participants, respectively.

The seventh question concerned the officers' perspective of what limitations, if any, safety rules, regulations, and policies placed on their ability to train realistically.

Once again the Israeli and Arab officers made similar replies. Both saw the practical utility to in-place regulations and did not feel inhibited in the conduct of their training. The Indonesian officer, to the contrary, said it was common practice to ignore many safety rules and let good judgement be the actual regulation that governed operations. He did comment, however, that those who followed this school of thought, and were victim to an accident within their unit, were subject to harsh punishment.

In India, most safety regulations are created more to protect equipment casualties than personnel injuries or deaths. But the mindset remains that any unit which suffers a troop mishap or fatality must immediately "get back up on its horse," repeat the activity, and allow training to proceed as normal. The British and French

officers quoted similar safety mechanisms to those used in the United States military and saw no difficulty in accomplishing their assigned missions as a result of safety procedures.

The final question asked the officers to approximate, based on their many years of experience, the number of serious injuries and deaths an average battalion-sized unit would suffer annually during the conduct of mission-oriented training. Table 6-1 below provides the results.

Table 6-1. Approximation of Serious Injuries and Deaths in Training Mishaps per Battalion per Year

Country	Serious Injuries	Deaths
Israel	3-4	0-1
Jordan	1-2	0-1
Indonesia	5-7	1
India	10-15	3
France	1-2	0-1
United Kingdom	3-4	1

Similar serious injury statistics were not easily attainable from available U.S. Marine Corps sources. However, the training death figures in chapter 4 reveal an annual average rate of slightly more than eight

fatalities/year over the past six years, but that for a total force of just under 200,000 Marines.

CHAPTER 7

CONCLUSIONS AND RECOMMENDATIONS

Conclusions

There are undoubtedly individual units and/or types of units within the U.S. Marine Corps which are currently conducting very realistic training, which have extensive battle stress instructional programs, and which are totally uninhibited by training safety restrictions. However, as noted in chapter 1, this thesis intended to review these training parameters Corps-wide. Given that perspective, the author concludes that the Marine Corps is not training as realistically as it could, does not provide adequate battle stress instruction, and is overly sensitive to training safety rules and policies.

This does not imply that the training which is being conducted is unrealistic, inadequate, or inefficient. Nor does it deny the progress which has been made over the past decade. What this thesis does conclude is that the Marine Corps can do better.

This chapter lists conclusions on training realism, battle stress, and safety drawn first from the analysis of documentary materials (chapter 4) researched for this thesis. Then it synthesizes those conclusions with the results of the survey (chapter 5). Finally, it compares the synthesized conclusions with those made as a result of

international officer interviews (chapter 6). The chapter ends with a series of recommendations for improvement and future study.

The nearly fully implemented MBST Program and the new TMS initiative have made great organizational, procedural, and focal improvements within the Marine corps training infrastructure. But they appear to still be incomplete in terms of defining training realism and emphasizing the need for formal battlefield stress education. While the major publications which implement these two programs perhaps should not address these issues with any degree of specificity, they should at least task their subordinate execution directives to do so.

As identified in chapter 4, it is the conditions element of a training standard or learning objective which ultimately establishes the degree of realism. The numerous "how-to" guides and POIs reviewed were very generic and non-specific in their guidance to the trainer. Economic restrictions, geographical considerations, and the level of individual proficiency certainly factor into the exact conditions the trainer establishes in order to evaluate task performance. However, it appears the individual trainer is left with a lack of specific conditional considerations in order to accomplish the mission at hand. Those who are highly experienced and very aggressive may find this situation to their liking as they will interpret this void as a welcome

opportunity for unconstrained initiative. But to those who lack the expertise or initiative, the individual trainee will likely suffer from bland, unrealistic training free of any risk or challenge.

"Spoon-feeding" is not the answer. But perhaps a better effort can be made at providing specific environmental, equipment, and situational considerations in the conditions element of the training standard. Individual judgement and personal initiative can and will always come to the fore and ultimately determine exactly what conditions are created. But to rely on these elements is short-sighted and potentially dangerous.

It appears that virtually nothing is provided in any significant detail regarding combat stress, fear, and fatigue, especially relative to its presence on the modern battlefield. It was probably sufficient fifteen years ago to suppose that the majority of trainers had actual combat experience and could therefore easily incorporate battle stress in their unit's training. Even if it were not formally scheduled and instructed, their personal experiences probably permeated their training syllabus anyway.

Even now, with more than 90,000 Marine Corps Operation Desert Storm combat veterans, it is unwise to suppose they are automatically qualified to professionally instruct this subject. Research in this thesis discovered only scarce amounts of formal battle stress instruction

addressed in written training documents. The review of numerous POIs also revealed a paucity of emphasis, primarily compared to the relatively large amounts of instruction provided on the more objective subjects of weapons and tactics. It appears the approach is that this subject is to be learned either by osmosis or "on-the-job" in combat. Many good articles and studies have been written on this subject and, therefore, professional reading programs can provide some insight and focus. But they are neither doctrinal nor directive. To rely on this method of education and instruction is inadequate and potentially dangerous.

As anticipated, review of the training versus safety dilemma yielded very non-specific, high level policy focus and yet exceedingly specific range and training area procedures. The latter always has and always will be necessary so that recklessness and anarchy do not reign within the conduct of routine training. However, the former clearly has sent a strong signal to all trainers that training safety is the priority over training realism.

In view of the recent war in the Persian Gulf, American society is probably now as accepting of military training mishaps as it has ever been. How long this "honeymoon" will last now that the war is over is to be seen. Despite these feelings, the DoD is still currently under scrutiny by the GAO for its training safety policies

and procedures. Also, the services continue to point to low training injury and fatality statistics as an indicator of how safely training is being conducted. These actions do not go unnoticed by the trainer who wants to be aggressive and train realistically, but often fears becoming responsible for the next training death or injury statistic.

It should not necessarily be concluded that more realistic training equals more training mishaps, nor vice versa. But it appears the Marine Corps is not willing to test the validity of this equation at the expense of a potentially adverse political or societal reaction. No leader wants to voluntarily offer up themselves or their Marines for injury or death in the name of more realistic training.

There is no doubt unit morale may be lowered by peacetime training injuries or deaths. But morale will definitely be even lower in the event Marines perceive that numerous wartime casualties are a result of unrealistic peacetime training. For example, it may not be entirely presumptuous that some of the fratricide (friendly fire) which occurred recently in the Gulf War may have been due to this very phenomena. Therefore, this somewhat radical training philosophy of prudent risk to the sacrifice of safety may be necessary to make real a corollary of the age old military maxim, "the more you sweat in peace, the less you bleed in war." Perhaps it

should read "the more you bleed in peace, the less you die in war."

A larger survey response would have been statistically more advantageous, but the 41 Marines who did reply in time to be considered represented an excellent cross-section of pay grades and MOSs. They were involved in a wide variety of international crises, primarily in the low to mid-intensity conflict of war spectrum. Average ages and lengths of service on active duty described a population that can be categorized as mature and experienced. Their assessment of the quality of their unit training was slightly above average. This was a desirable result in that it did not skew their perception of their individual training by being in units that were either very good or very bad. In those cases, individual training would more than likely be evaluated as very good or very bad too.

It is significant to note that in every case, the participants perceived their individual skills training as less than what they thought it should or could have been. Based on their personal experiences, they all felt the quality of their prior, peacetime training was approximately 10-25% less than totally realistic. While commenting favorably about the quality of training before major deployments and specific contingencies, training on all other occasions received much lower marks.

Although they indicated they spent substantial amounts of their time in crises dealing with battle stress, these Marines also revealed they very infrequently received any formal instruction on the subject. Their comments reflected its utter importance in mission effectiveness and productivity, and a belief it was not taught because of its subjectiveness.

There was no great cry to do away with safety regulations either. However, there was a uniform voice which complained of often unnecessary peacetime restrictions. Several clearly identified the need to test risk in peacetime and not waive regulations just for special occasions or in a combat zone. They frequently questioned the heart and soul of the "train as fight" slogan used so often today.

While the survey respondents were not senior field grade or general officers, they very much represented the trainer and trainee population which is charged with executing the policies of the establishment. Their numerical quality value assessments and comments seem to confirm the thesis question that training does need to be conducted more realistically if it is to be more effective. Of course, the very nature of this thesis' subjectiveness lends itself to liberal interpretation. But while it was never the intention of the author to indict the Marine Corps or its way of training, there does

appear to be some room for positive improvement in the ongoing development of its warfighting programs.

The interview of the international officers was also particularly insightful. Many of their concerns and problems are exceedingly similar to those of their American military counterparts. For the most part, they seem to be able to create more realistic training conditions despite infinitely smaller defense budgets. They have learned to do without, and most have a great deal of recent "real world" experiences within their militaries which appear to greatly facilitate realistic training, the instruction of battle stress, and a less restrictive system of training safety. Despite this, they also felt their training did not adequately prepare them to put their skills into actual practice.

Their societies appear to be much more tolerant of the risks associated with realistic training. Perhaps this is due to the relative proximity of the conflicts to their homeland, a situation certainly foreign to Americans since 1865. On the other hand, several noted great pressure from not just society, but more importantly their political superiors, not to damage or lose equipment. Not that American military leaders are unconcerned with this problem, but our focus is clearly on the individual's health and well being first.

These officers also indicated a real absence of formal training on battle stress, despite reporting

significant percentages of time spent in crises dealing with it and its effects. This reinforces the need to place a greater emphasis on this subject and make it a training priority. The tendency to shy away from subjective subjects in formal training environments is the causative result of many things beyond the scope of this thesis. However, this author concludes that solving this problem is fundamental to solving many others.

Many leadership concerns are never given their just attention because of their relative subjectiveness. Human relations, family and personal crisis solving, and training management, to name but a few, are never the subject of extensive study in formal instruction. Yet ask a young officer or NCO what they spend the bulk of their time doing, and it is not always weapons and tactics instruction. More is often spent on the subjective leadership-type subjects aforementioned. This does not advocate a complete reversal of training priorities. It does suggest the subject may need further study and a reassessment of the type, priority, and quantity of attention these and other similarly important leader development subjects receive.

Recommendations

This thesis was only able to skim the surface of a very important and complex subject. It does not appear

that any similar studies have been done specifically relating these three training parameters of realism, stress, and safety. Despite these potential shortcomings and deficiencies, the author feels satisfied that several recommendations can be made. These suggestions are made in rather generic terms. The "how-to" is left to the skill and imagination of the legion of highly qualified officers and SNCOs currently in the Marine Corps training establishment or filling FMF leadership billets, or future researchers.

First, the task performance training guides and directives must develop a more comprehensive and detailed list of training conditions which actually replicate the environment and stressors of combat. The trainer need not implement all or even some of these conditions if his unit is not resourced to do so, or if his Marines are simply not ready. But if he can, then he should have a suggested list of ingredients to draw from in order to make his training more realistic.

Battlefield stress must receive more than the token attention it currently is getting. A few guest speakers, lectures, and seminar discussions are inadequate. Formal instruction on its causes and effects, and countermeasures for dealing with the problem must be taught in peacetime training, at least in proportion to that experienced in combat/crisis. This effort goes hand-in-hand with developing more realistic training conditions. The

concepts and recommendations in the numerous articles and studies need to receive a high priority in training publications.

Finally, it is possibly time to revisit the training safety issue and take another look at the focus. The author does not believe it is criminally negligent nor in poor judgement to suggest that realism be the priority. Experienced leaders with a true battle focus will not recklessly endanger their Marines. But if they are constantly warned of the dangers and consequences of training mishaps, then the "zero defects" mentality will never go away.

As noted in chapter 5, the survey instrument was not statistically complex or in-depth. With the imminent close of Operation Desert Storm, now is an excellent time to expand the content of the survey used herein and this entire thesis to ask many similar questions of the Gulf War veterans. MCLLS should be put to the test to aggressively pursue this task. It may also be beneficial to survey contemporary crisis veterans of the major United States land force, the U.S. Army, to ascertain if similar concerns exist.

While this thesis never portended to solve any major problems, it does appear to have at least surfaced some concerns ripe for immediate future study. Additional in-depth research should be initiated into all battle-related individual skill tasks standards in order to

define a complete list of specific conditions that trainers can use to simulate a combat environment. Also, a more objective study of training injuries/deaths versus safety standards and procedures would be beneficial in defining the actual relationship between mishaps and realism. Finally, in conjunction with the Operation Desert Storm after action reviews, a more statistically comprehensive survey should be developed and its completion made mandatory for all contemporary combat veterans to validate the trends discovered in the survey used in this thesis.

Marines can and will do anything asked of them, to include conducting tough, dangerous training in their preparation for war. Three things are needed now in order to do that better -- give the trainers more ideas on how to specifically make their training realistic, teach them how to recognize and counteract the effects of battle stress, and liberalize safety regulations so they can more closely approximate the actual conditions experienced in war.

BIBLIOGRAPHY

Government Documents

Department of Defense. Department of Defense Instruction 6055.1, DoD Occupational Safety and Health Program. Washington, D.C.: Assistant Secretary of Defense (MI&L).

Department of the Navy. Secretary of the Navy Instruction 5100.10G, Department of the Navy Policy for Safety, Mishap Prevention and Occupational Health Programs. Washington, D.C.: Office of the Secretary of the Navy.

U.S. Army. Field Manual 26-2, Management of Stress in Army Operations. Washington, D.C.: Department of the Army, 1986.

_____. Field Manual 8-51 (Draft), Combat Stress Control in a Theater of Operations (Tactics, Techniques, and Procedures). Fort Sam Houston, TX: Academy of Health Sciences, 1990.

_____. Graphic Training Aid 21-3-6, Battle Fatigue - Company Level Actions and Prevention. Washington, D.C.: Department of the Army, June 1986.

U.S. Marine Corps. Fleet Marine Force Reference Publication O-1, Unit Training Management Guide. Quantico, VA: Marine Corps Combat Development Command, 29 January 1988.

_____. Fleet Marine Force Reference Publication O-1A, How to Conduct Training. Quantico, VA: Marine Corps Combat Development Command, 1989.

_____. Marine Corps Air Ground Combat Center Twentynine Palms Order P3500.4A, Standing Operating Procedure for Training Areas, Ranges and Airspace. Twentynine Palms, CA: Headquarters, Marine Corps Air Ground Combat Center, 8 October 1987.

_____. Marine Corps Base Camp Lejeune Order P11102.1K, Standing Operating Procedures for Range Control Operations (Range Control SOP). Camp Lejeune, NC: Headquarters, Marine Corps Base, Camp Lejeune, NC, 11 October 1985.

_____. Marine Corps Institute Order P1500.44B Marine Battle Skills Training/Essential Subjects. Arlington, VA: Marine Corps Institute, 6 September 1989.

_____. Marine Corps Order 1500."X" (Draft), Marine Battle Skills Training (MBST) Program. Washington, D.C.: Headquarters, U.S. Marine Corps, undated.

_____. Marine Corps Order 1500.40, Marine Corps Training Philosophy, Definitions, Priorities and Training Requirements. Washington, D.C.: Headquarters, U.S. Marine Corps, 13 November 1980.

_____. Marine Corps Order 1500.42A, Management for Marine Corps Training Institutions. Washington, D.C.: Headquarters, U.S. Marine Corps, 16 September 1985.

_____. Marine Corps Order 1500.40A (Draft), Marine Corps Unit Training Management System (TMS). Washington, D.C.: Headquarters, U.S. Marine Corps.

_____. Marine Corps Order 1500.442B (Draft), Management for Marine Corps Formal Schools and Training Centers. Washington, D.C.: Headquarters, U.S. Marine Corps.

_____. Marine Corps Order 1553.1B (Draft), The Marine Corps Training and Education System. Washington, D.C.: Headquarters, U.S. Marine Corps.

_____. Marine Corps Order 1510.35A, Battle Drill Guide and Individual Training Packages. Washington, D.C.: Marine Corps Institute, 1989.

_____. Marine Corps Order 1553.1A, The Systems Approach to Training. Washington, D.C.: Headquarters, U.S. Marine Corps, 10 January 1984.

_____. Marine Corps Order 3501.1B, Marine Corps Combat Readiness and Evaluation System (MCCRES). Washington, D.C.: Headquarters, U.S. Marine Corps, 27 December 1988.

_____. Marine Corps Order 5100.8E, Marine Corps Ground Occupational Safety and Health Program. Washington, D.C.: Headquarters, U.S. Marine Corps, 1986.

_____. NAVMC 2767, Lesson 84/217, "Combat Leadership." User's Guide to Marine Corps Leadership. Washington, D.C.: Marine Corps Headquarters, 12 March 1984.

Books

Collins, Arthur S. Jr. Common Sense Training - A Working Philosophy for Leaders. San Rafael, CA: Presidio Press, 1978.

Clausewitz, Carl von. On War. Trans. by Michael Howard and Peter Paret. Princeton, NJ: Princeton University Press, 1976.

Malone, Dandridge M. Small Unit Leadership - A Common Sense Approach. Novato, CA: Presidio Press, 1983.

Sarkesian, Sam C., Ed. Combat Effectiveness: Cohesion, Stress, and the Volunteer Military. Beverly Hills, CA: SAGE Publications, Inc., 1980.

Schell, Adolf von. Battle Leadership. Ft. Benning, GA: The Benning Herald, 1933.

Periodicals and Articles

Carroll, Eugene J. Jr., RADM "Avoiding Needless Military Deaths." The Los Angeles Times. Thursday, 23 June 1988, Part II, 7.

"Fear and Motivation: An AWS Battle Study." Marine Corps Gazette. No. 72, August 1988, 65-72.

Keinan, Giora, Ph.D. and Friedland, Nehemia, Ph.D. "Dilemmas Concerning the Training of Individuals for Task Performance Under Stress." Journal of Human Stress. No. 10, Winter 1984, 185-190.

Kern, R. P. "A Conceptual Model of Behavior Under Stress with Implications for Combat Training." HRRO Division No. 3, Technical Report 66-12. Washington, D.C.: The George Washington University, 1966.

Hunter, Edna J., Ph.D. and Prince, Howard T. II, Colonel. "Stress and the Combat Leader." Marine Corps Gazette. No. 72, August 1988, 58-69.

Richardson, William R., General. "Training: Preparation for Combat." Military Review. Ft. Leavenworth, KS: U.S. Army Command and General Staff College, June 1986, 5-11.

McMenamin, Joseph J., Major. "Developing a Continuous Operation Capability." Marine Corps Gazette. No. 75, February 1991, 65-71.

Sampson, Donald W., Captain. "Realistic Training vs. Safety." Marine Corps Gazette. No. 72, May 1988, 23-25.

Waldrop, F. H., Colonel. "Practicing to be Miserable," Marine Corps Gazette. No. 69, June 1985, 30-31.

Other Sources

"Basic Rifleman (0311 Course) Program of Instruction." Camp Lejeune, NC and Camp Pendleton, CA: U.S. Marine Corps Schools of Infantry, 8 May 1990.

"Basic Warrior Training Program of Instruction." Parris Island, SC: U.S. Marine Corps Recruit Depot, 13 March 1990.

"Basic Officer Course Program of Instruction." Quantico, VA: Marine Corps Combat Development Command, November 1988.

Commandant of the Marine Corps. ALMAR 104-90 (CMC Msg), "Introduction of the Marine Corps Training Management System." 031952Z, May 1990.

_____. White Letter 9-88. "Marine Battle Skills Training." Washington, D.C.: Headquarters, U.S. Marine Corps, 19 October 1988.

_____. ALMAR 172/90 (CMC msg 051957Z). "Marine Corps Ground Mishaps." August 1990.

_____. "Mishap Summaries and Trends 1-91." CMC msg 16031Z, November 1990.

_____. White Letter 6-90. "Negligent Discharge of Firearms." Washington, D.C.: Headquarters, U.S. Marine Corps, 13 November 1990.

Department of Defense Inspector General Memorandum for the Assistant Secretary of Defense (Force Management and Personnel). Subject: General

Accounting Office (GAO) Letter dated January 7, 1991. "Training Safety Across the Four Services." (GAO Code 391121). 15 January 1991.

Flora, Dale B. "Battlefield Stress: Causes, Cures, and Countermeasures." Master of Military Art and Science Thesis. Ft. Leavenworth, KS: U.S. Army Command and General Staff College, 1985.

Gray, Alfred M., General. "The Commandant's Report to the Officer Corps." Washington, D.C.: Marine Corps Headquarters, 1 May 1989.

"High Risk/High Stress Training Special Study Final Report." Ft. Leavenworth, KS: Combined Arms Training Activity, 31 March 1989.

"Infantry Officer Course Program of Instruction." Quantico, VA: Marine Corps Combat Development Command, March 1987.

"Marine Combat Training Program of Instruction." Camp Lejeune, NC: U.S. Marine Corps School of Infantry, 20 April 1990.

"On Duty, Ground Training Mishaps and Fatalities Report (1988-19)." Tabular presentation of data provided by the Marine Air Ground Training and Education Center, Marine Corps Combat Development Command. Quantico, VA, circa 1 February 1991.

"Report of Marine Corps Recruit Training Deaths (1972-1987)." Tabular presentation of data provided by the Marine Air Ground Training and Education Center, Marine Corps Combat Development Command. Quantico, VA, circa 1 February 1991.

Ripley, Colonel John W., USMC. Commanding Officer, Naval Reserve Officer Training Corps Unit, Virginia Military Institute, Lexington, VA. Personal letter to the author dated 22 February 1991.

"Senior Officer Training Management System Seminar Briefing Outline and Charts (Draft)." Quantico, VA: Marine Air-Ground Training and Education Center Standards Division, circa October 1990.

Sulzen, Robert H., Lieutenant Colonel. "Winning the AirLand Battle with Tactical Engagement Simulation." U.S. Army War College Essay. 31 March 1986.

U.S. Congress, House of Representatives. "Military Training and Safety." Hearing before the Military Personnel and Compensation Subcommittee of the Committee on Armed Services. Washington, D.C.: U.S. Government Printing Office, July 27, 1988.

U.S. Marine Corps. Lessons Learned System Report Number 31444-08325 (00901), "Quick Kill Training Course Based on Rules of Engagement Drills to Enhance Mental Conditions." 15 November 1989.

_____. Lessons Learned System Report Number 72531-43111 (01668), "SOCEX Noncombatant Evacuation Operations (NEO) Training." 7 September 1990.

"Warrant Officer Basic Course Program of Instruction." Quantico, VA: Marine Corps Combat Development Command, March 1989.

Zais, Mitchell M., Major. "Ardant du Picq: Unsung Giant of Military Theory." Term I Syllabus/Book of Readings, P671-The Evolution of Modern Warfare. Ft. Leavenworth, KS: U.S. Army Command and General Staff College, Combat Studies Institute, July 1990, 200-206.

INITIAL DISTRIBUTION LIST

Initial distribution of this thesis was accomplished as follows:

1. Combined Arms Research Library
   U.S. Army Command and General Staff College
   Fort Leavenworth, KS 66027-6900

2. Defense Technical Information Center
   Cameron Station
   Alexandria, VA 22314

3. U.S. Marine Corps Command and Staff College
   Breckenridge Library
   MCCDC
   Quantico, VA 22134

4. Mr. John A. Reichley
   DAO
   USACGSC
   Ft. Leavenworth, KS 66027-6900

5. LtCol Teryl W. Scalise, USMC
   DJCO
   USACGSC
   Ft. Leavenworth, KS 66027-6900

6. LTC Robert G. Mangrum, USAR
   1724 Tulane
   Brownwood, TX 76801

7. Chief, Marine Corps Section
   ATZL-SWL-MC
   USACGSC
   Ft. Leavenworth, KS 66027-6900

8. Col Wilbur C. Disman, USMC
   Chief of Staff
   MAGTEC
   MCCDC
   Quantico, VA 22134

9. Col Walter C. Wood
   School of Infantry
   Marine Corps Base
   Camp Lejeune, NC 28542

10. Col John W. Ripley, USMC
    Department of Naval Science
    Virginia Military Institute
    Lexington, VA 24450

11. LTC Michael F. Keohane, USA
CAL
USACGSC
Ft. Leavenworth, KS 66027-6900

APPENDIX A

ACRONYMS

BWT	Basic Warrior Training
CMC	Commandant of the Marine Corps
CONUS	Continental United States
DoD	Department of Defense
DoN	Department of the Navy
FM	Field Manual (U.S. Army)
FMFM	Fleet Marine Force Manual (U.S. Marine Corps)
FMFRP	Fleet Marine Force Reference Publication
GAO	General Accounting Office
HQMC	Headequarters, U.S. Marine Corps
IO	International Officer
MAGTEC	Marine Air-Ground Training and Education Center
MBST	Marine Battle Skills Training
MCB	Marine Corps Base
MCCDC	Marine Corps Combat Development Command
MCCRES	Marine Corps Combat Readiness and Evaluation System
MCLLS	Marine Corps Lessons Learned System
MCO	Marine Corps Order
MCIO	Marine Corps Institute Order
MCRD	Marine Corps Recruit Depot
MCT	Marine Combat Training
MILES	Multiple Integrated Laser Equipment System
MOPP	Mission Oriented Protective Posture
MOS	Military Occupational Specialty
MPS	Mission Performance Standards

NAVMC	Navy/Marine Corps
NCO	Noncommissioned Officer
RAC	Risk Assessment Code
SAT	Systems Approach to Training
SME	Subject Matter Expert
SNCO	Staff Noncommissioned Officer
SOI	School of Infantry
SOP	Standing Operating Procedure
TBS	The Basic School
TMS	Training Management System
ULT	Unit Leader Training
USMC	United States Marine Corps
UST	Unit Sustainment Training

APPENDIX B
SURVEY INSTRUMENT

14 January 1991

MEMORANDUM FOR SURVEY PARTICIPANT

Marine!

As part of a master's degree program at the U.S. Army Command and General Staff College here at Fort Leavenworth, Kansas, I am studying the interrelationship and impact of three elements of training: realism, stress, and safety. I want to specifically assess their effects on U.S. Marine Corps "peacetime," ground combat, individual skills training.

I am researching all the directives, publications, messages, and letters which have established the policy and philosophy for the way Marines will be trained for combat. But that will only address a part of my thesis. In order to prove or disprove my conclusions, what I really need are your honest and totally candid opinions concerning this subject.

To qualify as a survey participant, you must meet BOTH of the following criteria:

a. Be a Marine of ANY grade or MOS.

b. Have participated in at least one "real world" conflict/crisis/combat situation since 1982. Several examples of these are peacekeeping operations in Beirut from 1982-1984, any of the contingency operations in Panama from 1988-1990 to include Operation "Just Cause," the Sassan GOSP Operation "Praying Mantis" in 1988, Operation "Urgent Fury" in Grenada in 1983, Operation "Sharp Edge" in Liberia in 1990, or even Operation "Desert Shield." Essentially, I am looking for you Marines who have put into actual practice the individual, ground combat skills the Marine Corps taught you in training. This so called "real world" involvement does not have to include participation in an area where the Combat Action Ribbon or combat pay was authorized. Participation in mobile training teams in Central or South America, actual drug interdiction operations, or any other similar type experience will also qualify you.

I realize surveys are often viewed as an inconvenience, but I hope you will opt to fill out this one. I don't expect to solve the world's problems with this thesis. But I would hope the results of this study, particularly with your valuable input included, will in some way improve the quality of training and, more importantly, mission readiness in our Marine Corps.

Participation in this survey is, of course, strictly voluntary.

I would ask that you fill in your name in Part I of the attached survey form to allow for cataloging of all replies. However, I will respect your complete confidentiality and will NOT mention your name in the final text of the thesis as long as you do NOT place your signature on page 6 of the survey. Signing the survey will not guarantee a "by name" mention in the thesis either. But in the event you make what I consider an outstanding comment or recommendation, I want to give you full credit.

After completing the survey, simply place it along with any additional pages in the attached envelope, place your unit return address in the upper left corner, and give it to your unit mail clerk as soon as possible. If you have received a survey without an envelope attached, please mail it back to me at:

Chief, Marine Corps Section
(ATTN: Maj Romans)
USACGSC
ATZL-SWL-MC
Ft. Leavenworth, Kansas 66027-6900

Please feel free to reproduce this survey as necessary if you need additional copies. If you know of a peer, subordinate, and or superior who is qualified and might be interested in completing this survey, please pass them a copy.

If you have any questions, please call Autovon 552-3369/4555, Commercial (913) 684-3369/4555 and leave me a message.

In addition to the specific items I am researching in this survey, I would also very much like your specific recommendations on how the Marine Corps could make its training more "realistic." Perhaps you have been involved in, have seen, or maybe even heard of a technique, method, or way of enhancing ground combat individual skills training which, in your opinion, actually replicated the realistic and stressful conditions you experienced in conflict/combat, and yet was not recklessly dangerous to those who received the training. Consider these as "tips" you would use to train your subordinates to better prepare them for war. Please place these recommendations or comments on pages 5 or 6 of the survey or attach an additional sheet(s). I intend to include as many of your good ideas as possible in the thesis.

Please read this cover memo carefully. Also, review all six (6) pages of the attached survey before determining if you are eligible to complete it and deciding if you want to participate. If in doubt, please fill it out anyway!

I am sincerely in debt to you for assisting me in my research and for that am forever thankful. Any success obtained will be in large part due to your willingness to participate and sacrifice some of your extremely valuable time. I will be glad to send you a summary of the survey results if you will so indicate you desire a copy and provide me your full name, grade, and mailing address.

C. A. ROMANS, JR.
Major, U.S. Marine Corps

Survey Control #9136-005

U.S. MARINE CORPS GROUND COMBAT TRAINING SURVEY

As part of a master's degree program at the U.S. Army Command and General Staff College, I am studying the interrelationship and impact of three elements of training: realism, stress, and safety. This survey asks you to evaluate your perception of these elements based on your participation and experience gained during recent (post-1982) "real world" crisis/combat situations. The evaluation of the "quality" (degree of "realism") is to be made from two different perspectives. First, your perception before you entered into the conflict/crisis situation. Second, your perception after you entered into the conflict/crisis and were called on to put into practice those individual skills you had conducted in training.

\\

SPECIAL NOTE: Your are requested to complete a separate Part I of the survey for each separate crisis/combat situation you were involved in. You only need to complete Part II one time, unless you feel that your replies will be different for each different conflict/combat situation you were involved in. Then staple or clip them together prior to mailing.

\\

PART I - DEMOGRAPHIC INFORMATION

A. LAST NAME:______________________ INITIALS:__________

B. RANK: (CURRENT)______ (AT TIME OF CRISIS/COMBAT)______

C. AGE: (CURRENT)______ (AT TIME OF CRISIS/COMBAT)______

D. PRIMARY MOS:_________ ADDITIONAL MOS'S:_____________

E. # YEARS ACTIVE DUTY: (CURRENT)____________________
(AT TIME OF CRISIS/COMBAT)____________________

F. UNIT: (CURRENT)______________________________
(AT TIME OF CRISIS/COMBAT)____________________

G. BILLET: (CURRENT)____________________________
(AT TIME OF CRISIS/COMBAT)____________________

H. LIST ALL MILITARY SCHOOLS/SPECIAL TRAINING RECEIVED PRIOR TO THE CRISIS/COMBAT:

(PLEASE CONTINUE ON TO PAGE 2)

I. OVERALL LEVEL OF UNIT TRAINING RECEIVED PRIOR TO THE CRISIS/CONFLICT: (ASSIGN A NUMERICAL VALUE OF "1" TO "10" - "1" MEANING MINIMAL TRAINING RECEIVED FOR THE SPECIFIC CRISIS/CONFLICT AND "10" MEANING EXTENSIVE TRAINING RECEIVED FOR THE CRISIS/CONFLICT.)

NUMERICAL VALUE ASSIGNED:________

J. GEOGRAPHIC LOCATION OF CRISIS/COMBAT:___________________
K. DATE ENTERED CRISIS/COMBAT AREA:________________________
L. APPROXIMATE TOTAL # DAYS INVOLVED IN CRISIS/COMBAT____
M. NAME OF OPERATION (IF APPLICABLE):______________________

PART II - INDIVIDUAL SKILLS/STRESS/SAFETY EVALUATION

\\

NOTE: For the purpose of this thesis/survey, the following are some examples of what I am defining as "individual skills": physical conditioning/stamina, NBC defense/decon, tactical reporting using field radios/ telephones, camouflage/cover/concealment, personal hygiene, calling/adjusting supporting arms, small arms marksmanship (day and night), individual tactical movement (day and night), reaction to live fire (direct and indirect), obstacle and minefield emplacement/breeching, crew served weapons employment, identification and treatment of combat stress, hand-to-hand combat, first aid, medevac procedures, land navigation, and survival training. It is recognized that several of these can also be "collective (unit/team) skills" tasks. But it is the individual Marine's participation in that team task that is the subject of this thesis.

\\

A. WHAT IS YOUR PERCEPTION OF THE QUALITY OF "INDIVIDUAL SKILLS" TRAINING YOU RECEIVED BEFORE ENTERING CRISIS/ COMBAT?

(ASSIGN A NUMERICAL VALUE FROM "1" TO "10", "1" BEING DEFINED AS VERY POOR IN QUALITY AND UNREALISTIC AND "10" BEING DEFINED AS EXTREMELY HIGH IN QUALITY AND AS REALISTIC AS IMAGINABLE.)

NUMERICAL VALUE:________________

PLEASE JUSTIFY YOUR RESPONSE WITH SPECIFIC EXAMPLES AND CRITICISMS, BOTH POSITIVE AND NEGATIVE. CITE SPECIFIC INDIVIDUAL SKILLS ALSO:

(PLEASE CONTINUE ON TO PAGE 3)

(USE PAGES 6 AND 7 AND/OR ATTACH ADDITIONAL SHEETS, IF NECESSARY, AND PREFACE ANY ADDITIONAL COMMENTS ON THIS SUBJECT WITH THE PHRASE "BEFORE COMBAT OPINION CONTINUED."

\\\

B. WHAT WAS YOUR PERCEPTION OF THE QUALITY OF "INDIVIDUAL SKILLS" TRAINING YOU RECEIVED AFTER YOU PARTICIPATED IN A "REAL WORLD" CRISIS/COMBAT SITUATION?

(ASSIGN A NUMERICAL VALUE FROM "1" TO "10", "1" BEING DEFINED AS VERY POOR IN QUALITY AND UNREALISTIC AND "10" BEING DEFINED AS EXTREMELY HIGH IN QUALITY AND AS REALISTIC AND IMAGINABLE.)

NUMERICAL VALUE:_____

PLEASE JUSTIFY YOUR RESPONSE WITH SPECIFIC EXAMPLES AND CRITICISMS, BOTH POSITIVE AND NEGATIVE. CITE SPECIFIC INDIVIDUAL SKILLS ALSO:

(PLEASE CONTINUE ON TO PAGE 4)

(USE PAGES 6 AND 7 AND/OR ATTACH ADDITIONAL SHEETS, IF NECESSARY, AND PREFACE ANY ADDITIONAL COMMENTS ON THIS SUBJECT WITH THE PHRASE "AFTER COMBAT OPINION CONTINUED.")

\\

C. HOW MUCH TRAINING ON THE SUBJECT OF "BATTLEFIELD STRESS, FEAR, AND FATIGUE AND THEIR CAUSES AND COUNTERMEASURES FOR DEALING WITH THEM" HAVE YOU RECEIVED IN YOUR CAREER?

(ASSIGN A NUMERICAL VALUE OF "1" TO "10" - "1" BEING LITTLE TRAINING RECEIVED AND "10" BEING EXTENSIVE TRAINING RECEIVED.)

NUMERICAL VALUE ASSIGNED:________

D. FROM YOUR PERSONAL EXPERIENCES IN "REAL WORLD" CRISIS/COMBAT, WHAT PERCENTAGE OF TIME WAS SPENT IN THE CONFLICT(S) ACTUALLY DEALING WITH BATTLEFIELD STRESS, COMBAT FATIGUE, AND FEAR AS OPPOSED TO THE PRACTICAL APPLICATION OF WEAPONS AND TACTICS SKILLS:

______% TIME SPENT DEALING WITH IT ON A PERSONAL BASIS
______% TIME SPENT DEALING WITH IT AS A LEADER ISSUE (IF APPLICABLE

ANY ADDITIONAL COMMENTS ON BATTLEFIELD STRESS/FATIGUE/ FEAR:

(PLEASE CONTINUE ON TO PAGE 5)

(USE PAGES 6 AND 7 AND/OR ATTACH ADDITIONAL SHEETS, IF NECESSARY, AND PREFACE ANY ADDITIONAL COMMENTS ON THIS SUBJECT WITH THE PHRASE "STRESS/FEAR/FATIGUE."

\\\

E. REALIZING THAT RULES AND REGULATIONS REGARDING SAFETY ARE ESSENTIAL TO THE CONDUCT OF EFFECTIVE TRAINING, DO YOU NONETHELESS FEEL THAT THOSE RULES AND REGULATIONS CURRENTLY IN PLACE ARE TOO RESTRICTIVE, NOT RESTRICTIVE ENOUGH, OR ARE ABOUT RIGHT?

(ASSIGN A NUMERICAL VALUE OF "1" TO "10" - "1" MEANING TOO RESTRICTIVE AND "10" MEANING NOT RESTRICTIVE ENOUGH.)

NUMERICAL VALUE ASSIGNED:_____

ANY ADDITIONAL COMMENTS ON SAFETY:

(USE PAGES 6 AND 7 AND/OR ATTACH ADDITIONAL SHEETS, IF NECESSARY, AND PREFACE ANY ADDITIONAL COMMENTS ON THIS SUBJECT WITH THE PHRASE "SAFETY."

\\\
\\\

Your honest and candid comments throughout this survey are very much appreciated and I hope will make a difference in improving both the quality of training and, more importantly, mission readiness throughout our Corps. I sincerely thank you for taking your valuable time to support my research.

(PLEASE REVIEW PAGES 6 AND 7 FOR ADDITIONAL COMMENT SPACE, AND MAILING AND SIGNATURE INFORMATION)

PAGES 6 AND 7 ARE RESERVED FOR YOUR ADDITIONAL "BEFORE COMBAT OPINION," "AFTER COMBAT OPINION," "STRESS," "SAFETY," AND "RECOMMENDATIONS" COMMENTS. LABEL ANY ADDITIONAL COMMENTS YOU MAY HAVE WITH THOSE HEADINGS BEFORE PROVIDING THE ADDITIONAL TEXT.

(PLEASE REVIEW THE BOTTOM OF PAGE 7)

YOUR SIGNATURE (OPTIONAL) _____ DATE _____

After completing the survey, place it an any additional pages in the envelope provided, put your unit return address in the upper left corner, and give it to your unit mail clerk as soon as possible. If you did not receive an envelope, please mail the completed survey to:

Chief, Marine Corps Section
(ATTN: Maj Romans)
USACGSC
ATZL-SWL-MC
Fort Leavenworth, KS 66027-6900

If you have any peers, subordinates, or superiors who you think are qualified and would be interested in filling out one of these surveys, please feel free to reproduce as many copies as necessary or leave a message for me at Autovon 552-3369/4555, Commercial (913) 684-3369/4555 and I will send them a copy. Thanks again and Semper Fi!! ("Bravo Zulu" to all Marines participating and supporting Operation "Desert Shield!")